

**EFFECTIVENESS OF BREAST CRAWL TECHNIQUE ON  
INITIATION OF BREASTFEEDING AND INTENSITY OF  
EPISIOTOMY SUTURING PAIN AMONG PRIMI MOTHERS  
AT KARPAGA VINAYAGA INSTITUTE OF MEDICAL  
SCIENCES AND RESEARCH CENTRE IN  
KANCHEEPURAM DISTRICT**

**By**

**Ms. SADHANA. D**



**A DISSERTATION SUBMITTED TO  
THE TAMILNADU DR. M.G.R MEDICAL UNIVERSITY,  
CHENNAI IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF  
MASTER OF SCIENCE IN NURSING**

**OCTOBER – 2015**

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## **CERTIFICATE**

This is to certify that **“A study to assess the effectiveness of breast crawl technique on initiation of breastfeeding and intensity of episiotomy suturing pain among primi mothers at Karpaga Vinayaga Institute of Medical Sciences and Research Centre, in Kancheepuram District”** is a bonafide work done by **Ms. Sadhana.D,M.Sc. (N) II Year**, Karpaga Vinayaga College of Nursing, Kancheepuram District, in partial fulfillment of **The Tamilnadu Dr. M.G.R. Medical University** rules and regulations towards the award of the degree of Master of Science in Nursing, Branch-III, Obstetrics and Gynaecological Nursing, under my guidance and supervision during the academic year 2013-2015.

**Date:**

**Place:**

**signature of the principal**

## **DECLARATION**

I hereby declare that the dissertation entitled “**A study to assess the effectiveness of breast crawl technique on initiation of breastfeeding and intensity of episiotomy suturing pain among primi mothers at Karpaga Vinayaga Institute of Medical Sciences and Research Centre, in Kancheepuram District**” is submitted to The Tamilnadu Dr.M.G.R Medical University, Chennai, in partial fulfillment of the Master of Science in Nursing under the guidance and supervision of **Dr. (Mrs). T. Komalavalli, M.Sc. (N), Ph.D. (N), LLB**, Principal and Head of the Department of Research and **Mrs.R.Mohana, M.Sc. (N)**, Associate Professor of Department of Obstetrics and Gynecological Nursing, Karpaga Vinayaga college of Nursing, in Kancheepuram District and has not formed the basis for the award of any degree or diploma, associateship, fellowship titles in this or any other universities.

**Place:**

**Signature of the Candidate**

**Date:**

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**OCTOBER –2015**

**INTERNAL EXAMINER**

**EXTERNAL EXAMINER**

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## SYNOPSIS

The initiation of breastfeeding within first hour of birth and feeding the first yellowish thick milk protects the child from illness and diseases. “A study was conducted to assess the effectiveness of breast crawl technique on initiation of breastfeeding and intensity of episiotomy suturing pain among primi mothers at Karpaga Vinayaga Institute of Medical Sciences and Research Centre, in Kancheepuram District”.

The objectives were, to evaluate the effectiveness of breast crawl technique on initiation of breastfeeding among primi mothers, to identify the effectiveness of breast crawl technique on intensity of episiotomy suturing pain among primi mothers, to associate the selected demographic and obstetrical variables with initiation of breastfeeding and intensity of episiotomy suturing pain among primi mothers.

A randomized controlled trial with post test only design was chosen for this study. By using purposive sampling technique a total of 60 sample were included for the study. It consisted of 30 each in experimental and control group. Breast crawl technique was implemented for experimental group participants along with routine care whereas control group participants were only on routine care. Post test was done for both experimental and control group participants. Both descriptive and inferential statistics were used for the analysis.

The results revealed that there was a statistically significant difference between experimental and control group on initiation of breastfeeding and intensity of episiotomy suturing pain at level  $p < 0.001$ . These study findings implied that the simple measure like breast crawl technique is easy to do and practice to maintain initiation of breastfeeding and to reduce the intensity of episiotomy suturing pain among primi mothers.

**Key words:** -Breast crawl technique, Initiation of breastfeeding, Intensity of episiotomy suturing pain and primi mothers.

## **TABLE OF CONTENTS**

| <b>CHAPTER<br/>NO</b> | <b>CONTENTS</b>   | <b>PAGE<br/>NO.</b> |
|-----------------------|---|---------------------|
| <b>I</b>              | <b>INTRODUCTION</b>   | <b>1 -15</b>        |
|                       | Background of the study   | 1-7                 |
|                       | Need for the study  | 8-12                |
|                       | Statement of the problem  | 12                  |
|                       | Objectives of the study   | 13                  |
|                       | Operational definitions   | 13-14               |
|                       | Hypothesis  | 14                  |
|                       | Delimitations   | 15                  |
|                       | Projected Outcomes  | 15                  |
| <b>II</b>             | <b>REVIEW OF LITERATURE</b>                                     | <b>16-33</b>        |
|                       | Literature related to the breast crawl technique                | 16-21               |
|                       | Literature related to the initiation of breastfeeding           | 21-28               |
|                       | Literature related to the intensity of episiotomy suturing pain | 28-30               |
|                       | Conceptual framework  | 31-33               |
| <b>III</b>            | <b>METHODOLOGY</b>  | <b>34-45</b>        |
|                       | Research approach   | 34                  |
|                       | Research design   | 34-35               |

|            |   |               |
|------------|---|---------------|
|            | Variables   | 36            |
|            | Setting of the study  | 36            |
|            | Population  | 36            |
|            | Sample  | 37            |
|            | Sampling size   | 37            |
|            | Sample technique  | 37            |
|            | Criteria for sample selection   | 37-38         |
|            | Selection and development of study instrument                                     | 38-41         |
|            | Validity of the tool  | 42            |
|            | Reliability   | 42            |
|            | Pilot study   | 42            |
|            | Data collection procedure   | 43-44         |
|            | Plan for data analysis  | 44-45         |
| <b>IV</b>  | <b>DATA ANALYSIS AND INTERPRETATION</b>   | <b>46-67</b>  |
| <b>V</b>   | <b>DISCUSSION</b>   | <b>68-72</b>  |
| <b>VI</b>  | <b>SUMMARY, CONCLUSION,<br/>RECOMMENDATIONS, LIMITATIONS AND<br/>IMPLICATIONS</b> | <b>73- 79</b> |
| <b>VII</b> | <b>REFERENCES</b>   | <b>80-87</b>  |
| <b>VII</b> | <b>APPENDICES</b>   | <b>i-xxvi</b> |

## LIST OF TABLES

| TABLE<br>NO. | TITLE  | PAGE<br>NO. |
|--------------|--|-------------|
| 1            | Research design  | 34          |
| 2            | Plan for data analysis   | 45          |
| 3            | Distribution of demographic variables among experimental and control group   | 47          |
| 4            | Distribution of obstetrical variables among experimental and control group   | 49          |
| 5            | Distribution of initiation of breastfeeding and intensity of episiotomy suturing pain among experimental and control group | 54          |
| 6            | Comparison of initiation of breastfeeding and intensity of episiotomy suturing pain between experimental and control group | 57          |
| 7            | Association of selected demographic variables with initiation of breastfeeding among experimental group                    | 60          |
| 8            | Association of selected obstetrical variables with initiation of breastfeeding experimental group                          | 61          |
| 9            | Association of selected demographic variables with initiation of breastfeeding among control group                         | 62          |
| 10           | Association of selected obstetrical variables with initiation of breastfeeding among control group                         | 63          |
| 11           | Association of selected demographic variables with intensity of episiotomy suturing pain among experimental group          | 64          |
| 12           | Association of selected obstetrical variables with intensity of episiotomy suturing pain among experimental group          | 65          |
| 13           | Association of selected demographic variables with intensity of episiotomy suturing pain among control group               | 66          |
| 14           | Association of selected obstetrical variables with intensity of episiotomy suturing pain among control group               | 67          |

## LIST OF FIGURES

| FIGURES<br>NO. | TITLE  | PAGE<br>NO. |
|----------------|--|-------------|
| 1              | Conceptual frame work based on Modified Kristen. M. Swanson theory of caring (2011)                      | 32          |
| 2              | Schematic representation of research methodology   | 35          |
| 3              | Distribution of gestational age among experimental and control group                                     | 51          |
| 4              | Distribution of birth weight of the newborn among experimental and control group                         | 52          |
| 5              | Distribution of Apgar score of the newborns among experimental and control group                         | 53          |
| 6              | Distribution of initiation of breastfeeding among experimental and control group                         | 55          |
| 7              | Distribution of intensity of episiotomy suturing pain among experimental and control group               | 56          |
| 8              | Distribution of mean level of initiation of breastfeeding among experimental and control group           | 58          |
| 9              | Distribution of mean level of intensity of episiotomy suturing pain among experimental and control group | 59          |

## **LIST OF APPENDICES**

| <b>S. No</b> | <b>Title</b>  | <b>Page No.</b> |
|--------------|---|-----------------|
| A            | Letter seeking permission for conducting the study                  | i               |
| B            | Letter permitting to conduct the study                              | ii              |
| C            | Letter seeking experts opinion for the content validity of the tool | iii             |
| C1           | Acceptance of tool validation                                       | iv              |
| D            | Research participants consent form- English                         | v               |
| D1           | Research participants consent form- Tamil                           | vi              |
| E            | Certificate for English editing                                     | vii             |
| E1           | Certificate for Tamil editing                                       | viii            |
| F            | List of experts   | ix              |
| G            | Tool for the study  | x-xxii          |
| H            | Data sheet for experimental and control group                       | xxiii-xxiv      |
| I            | Photographs of this study   | xxv-xxvi        |

## **CHAPTER - I**

### **INTRODUCTION**

**“Breast milk is the best milk”**

#### **BACKGROUND OF THE STUDY**

Breastfeeding begins at birth. Our very first act after birth is sucking our mother's milk... this is an act of affection and compassion. Without that act we cannot survive. That is clear, that is the way of life. That is reality.

**(Dalai Lama, 2013)**

Initiation of breast feeding within first hour of birth and feeding the first yellowish thick milk protects the child from illness and diseases. Exclusive breastfeeding for the first 6 months prevents diarrhea and pneumonia. Breastfeeding improves child IQ. Breastfeed should be given whenever the mother is with the child.

Motherhood - The only act that manifests in human form the cosmic wonder of creation. Child birth is a process beautifully designed by nature and the care following the birth of the baby is essential for the maintenance of health for both mother and child. Child birth is a transcendent event with meaning far beyond the actual physiologic process. The main vital considerations for the infants in tropical countries are breastfeeding and avoidance of infection. Breast milk is the food of

choice for infants. Breastfeeding offers many advantages such as nutritional, immunological and psychological.

Breastfeeding is the feeding of a baby with milk directly from the mother's breast, rather than from a baby bottle or other container. Babies have a sucking reflex that enables them to suck and swallow milk. Human breast milk is the most healthful form of milk for babies. Breast milk especially the first milk colostrum which contains antibacterial and antiviral agents that protects the infant against disease especially diarrhoea. These are not present in animal milk or formula milk. Breast milk aids the development of infant's own immune system.

Mother's milk is a divine gift for a baby. Breast milk is only the food for the baby which is natural, physiological way of feeding. Breastfeeding could save the lives of 1.3million children a year. Breast milk provides the exact combination of nutrients that a developing infant needs. Improved breastfeeding alone could save the lives of more than 3500 children every day. Increasing optimal breastfeeding could save an estimated 1.5 million infant live annually. Up to 55%of infant deaths from diarrheal disease and acute respiratory tract infection may result from inappropriate feeding practices. Optimal feeding for sustained child health and growth includes initiation of breastfeeding within first hour of life, exclusive breastfeeding for 6 month, timely complementary feeding with appropriate foods, and continued breastfeeding for 2 years and beyond.

Breastfeeding has several advantages to mother, baby and society. It saves the life of baby, provides initial immunization, prevents diarrhea, provide complete and perfect nutrition, maximizes a child's physical and intellectual potential support,



food security, bonds mother and child, helps birth spacing, and saves money. It has most useful, naturally available, clean and safe food. As it has various advantages it should initiate early after the birth of baby.

Breast milk is an ideal diet for new born. Breastfeeding is an unequal way of providing ideal nutrition for the healthy growth and development of newborn and has a unique biological and emotional influence on the health of both the mother and the new born. The promotion of early initiation of breastfeeding has great potential. Worldwide 16 percentage of the new born deaths could be saved in all newborns we breastfed from day 1 and 22 percentage if breastfeeding started within an hour after birth (Edmond, et, al.2006) UNICEF, WHO, WABA and all other government agencies recommended that the breastfeeding should be initiated in the first hour of birth.

Early initiation of breastfeeding offers advantages to the mother and baby, helps to keep the baby warm leads to faster and effective achievement of feeding skills by the baby. The baby starts getting colostrum as the baby starts getting colonized by safe germs from the mother. Both these offer protection against infections and important for the survival of the baby. It also helps mother to have good uterine contractions and fastens expulsion of placenta, decreases maternal blood loss and prevents anaemia. It maintains better sugar level and other biochemical parameters of the mother in the first few hours of birth.

The one of method to initiate the breastfeeding is Breast crawl. Breast crawl is the natural instinctive behavior of the human newborn. The mother and newborn are mutually response in the most sensitive period of half to one hour following

delivery for successful breastfeeding. A baby is born with many instinctive abilities which enable her to perform. With all these innate programmes, the newborn seems to come into life carrying a small computer chip with the set of instructions. It appears that young humans, like other baby mammals, know how to find their mother's breast.

There is a general consensus that newborn cannot initiate breastfeeding soon after birth. **Kulkarni, (2013)**, stated contrary to this belief that a newborn is the highest mood soon after birth for breastfeeding. The newborn remains alert for half an hour and if not properly activated during this period falls asleep. Therefore soon after delivery, when the newborn has cried and started breathing well, breastfeeding can be initiated by stimulating alertness of the newborn through breast crawl technique.

Everything in breast crawl is perfectly designed by nature. The skin-to-skin contact helps the baby to remain warm and initiates mother-baby bonding. Baby's kicking on mother's abdomen stimulates uterus to contract thereby reducing bleeding and enhances expulsion of placenta and reduces the episiotomy suture pain. The baby smells food close by, begins salivating, reaches areola and initiates breastfeeding by it.

Every newborn when placed on her mother's chest, soon after birth has the ability to find her mother's breast all on her own and to decide when to take the first breastfeed. This is called the "Breast crawl". It was first described in 1987 in Sweden. Human babies like the young ones of other mammalian animals when kept

in skin to skin contact between their mother's breasts can initiate breastfeeding (BF) on their own.

The description of 'Breast Crawl' suggested an organized predictable feeding behaviour of the new born placed on the mother's chest immediately after birth. Initially there are spontaneous sucking and rooting movements, soon followed by hand to mouth activity together with intense sucking and rooting activity, culminating in sucking at the breast. The whole activity takes about 35-50minutes.

Studies on breast crawl have shown that 70-100% of babies successfully complete the breast crawl to take their first feed immediately after birth. The few who do not complete, achieve it with some assistance. There is scientific evidence to believe that breast crawl is associated with a variety of sensory, central, motor and endocrine components<sup>13</sup>. These directly or indirectly help the baby to move towards the breast and nipple and to successfully breastfeed when placed on the mother chest and abdomen in between the breasts.

It is our strong desire that, the information about initiation of breastfeeding through breast crawl helps every mother and baby to experience the miracle of breast crawl. If we all could achieve early initiation breastfeeding we will be able to prevent 22% of all deaths among babies below one month. This can be achieved by training all health care providers to initiate breastfeeding by breast crawl to give infants the best start in life.

**WHO, (2012)**, highlighted that the newborns also follow a predictable pattern of pre-feeding behavior when held on their mother's chest immediately after birth. The movements started within 12 to 44 minutes and were followed by

spontaneous sucking with good attachment at 27 to 71 minutes, there after declined and was absent by 2 to 2:30 hours after birth.

**United Nations International Children Emergency Fund (2013),** explained that breast crawl is novel, easy, readily available, evidence based and cost effective miraculous method to initiate breastfeeding. It does not require elaborate preparations or instructions and can be performed in all birth setting and units.

UNICEF, WHO, WABA (World Association on Breastfeeding Alliance and BPNI (Breastfeeding Promotion Network of India) strongly recommend initial breastfeeding within half an hour of birth. Early initiation can prevent 22% of all deaths below 1 month in developing countries. This is due to the several advantages it offers to the mother and baby.

#### Advantages of breast crawl technique

- Prevents hypothermia by keeping the baby warm due to skin to skin contact with the mother.
- Baby achieves effective feeding skills faster so chances of long term breastfeeding success increase.
- Baby gets early protection from infections from colostrum (initial milk secretions which have a high concentration of antibodies and other anti-infective properties) as the first feed.
- Colonization by safe bacterial flora by coming in skin to skin contact with the mother also protects the baby from infectious.

- Early feeding prevents hypoglycemia and helps in better maintenance of other biochemical parameters in the first few hours after birth.
- It may have a role in boosting development of the baby's nervous system.
- It leads to better mother-infant bonding.
- Material advantages of early initiation are better uterine contractions due to oxytocin surge, leading to faster expulsion of the placenta.
- Reduction in maternal blood loss during the third stage of labour and prevention of anaemia.
- It improves the early sucking and rooting reflex of the newborn.
- It improves the neurological development of the newborn.
- It leads to decreasing the pain during episiotomy suturing because the mother attention seeks by the newborn.

Thus breast crawl technique is proved to be effective to initiate breastfeeding in the newborn immediately after birth. This ultimately reduces the perception of episiotomy suturing pain among primi mothers.

The breast crawl is associated with a variety of sensory, central, motor and neuro-endocrine components, all directly or indirectly helping the baby to move and facilitate her survival in the new world. The benefits accrued from the practice are innumerable, the most important being a significant reduction in mortality, morbidity and malnutrition among the newborn.

## **NEED FOR THE STUDY**

The best time to start breastfeeding is within 20-30 minutes of the newborn's birth, if there are not complications with delivery. It helps to promote mother-infant bonding and immune protection to the newborn by the first breast milk and initial milk secretions which have a high concentration of antibodies and other anti-infective properties. The first breast milk contains colostrum it gives protection to the newborn and improves the immunity power and prevents the early affecting conditions like diarrhoea and pneumonia.

World Health Organization and United Nations International Children Emergency Fund recommended early initiation of breastfeeding which results in lower neonatal mortality. Each year approximately 4 million newborn die, mostly from preventable causes. Deaths in the neonatal period accounts 41% of all deaths in children below five years and almost 99% of neonatal deaths take place in low and middle income countries. In which India is leading with 28% of global neonatal deaths. Evidence shows that early initiation of breastfeeding can prevent 22% of all deaths among babies below one month in developing countries. About 16% of neonatal deaths could be prevented if all infants were breastfed from day 1 and 22% if breastfed within 1<sup>st</sup> hour after birth.

India can save its 2,50,000 newborns annually if mothers begin breastfeeding within an hour of birth, initiation of breastfeeding within an hour of birth is the first and most vital step towards reducing infant and under five mortality, by reducing the over whelming high neonatal mortality rate. Breast crawl seem to be the best and easiest method to initiate breastfeeding within an hour of birth.

**World Alliance for Breastfeeding Action, (2013)**, published a study from Ghana found that 22 percentages of deaths among newborns may be prevented, if breastfeeding started within an hour of birth irrespective of whether they are exclusively breastfed later or not. Extrapolating the data to other countries, the researchers estimated that 31 percentage of newborn deaths could be prevented if they breastfed within an hour of birth and nearly 8, 67,000 lives could be saved would wide if they started breastfeeding on the first day.

**American Academy of Pediatrics (2011)**, defined that exclusive breastfeeding for the infant consists of receiving only breast milk without supplementation of food or drink, not even water. Exclusive breastfeeding is the reference or normative model for infant feeding. It also suggested that the optimal duration of exclusive breastfeeding should be until 6 months of age.

**WHO, (2012)**, stated that on an average of 46 percentages of newborns are malnourished which is primarily due to the improper feeding practices. Early initiation of breastfeeding will minimize at least 22 percentage of malnutrition. Thus, breast crawl has the potential to improve initiation rates of breastfeeding and to reduce neonatal, infant and under five morbidity and mortality.

**Nightingale Nursing Times, (2013)**, presented a report using the data from National Family Health Survey (NFHS – III), Where 23.4 percentage of newborns across the country were given breast milk in the first hour of birth. Although there is a marginal improvement of 7.4 percentage in early initiation of breastfeeding in 7 years as compared to NFHS –II, this figure is still very low, North Eastern states and Goa are some of the better performing states in India, The rate in Mizoram is 65.4

percentage that is the highest in the country followed by 59.7 percentage in Goa and 58.6 percentage in Meghalaya. The other states that have relatively higher rates are Kerala (55.4 Percentage), Tamilnadu (55.3 Percentage), Arunachal Pradesh (55 percentage), Orissa (54.3 Percentage), Maharashtra (51.8 Percentage), Nagaland (51.5 percentage) and Assam (50.6 Percentage). In states like Bihar, Uttarpradesh, Panjabi, Jharkhand, Rajasthan, Madhya Pradesh and New Delhi. It is less than 40 percentages. Even from the previous list, Uttar Pradesh and Bihar have lowest rates that are only 7.2 percentages and 4 percentages respectively.

**Gangal, (2012)**, explained that benefits of early initiation of breastfeeding are widely known and practice is generally encouraged, no specific method for starting such breastfeeding is recommended. These practices vary from place to place. Revised Baby Friendly Hospital Initiative Global Criteria (2006) stated a new interpretation to help mothers to initiate breastfeeding within half an hour of birth. It recommended that “place the newborns in skin to skin contact with their mothers, immediately following birth for at least an hour and encourage mothers to recognize their newborn’s readiness to breastfeed, offering help if needed’ breast crawl is the evidence based method to implement the 4<sup>th</sup> step of Baby Friendly Hospital Initiative.

Many health personnel in maternity services are unaware of implementing Baby Friendly Hospital Initiative recommendation of early initiation of breastfeeding within one hour of birth. As a result, initiation of breastfeeding is often delayed. Even in those places where health professionals are well informed and keen in early initiation of breastfeeding programme, awareness of Breast Crawl is lacking.



The above mentioned literatures underline the importance of early initiation of breastfeeding. It is strongly recommended but not widely practiced in the maternity centers where importance is given only to the routine care and initiation of breastfeeding is delayed. Hence, the investigator is interested to assess the abilities of newborn to initiate breastfeeding through breast crawl.

Genital tract trauma is common following vaginal childbirth, and perineal pain is a frequent symptom reported by new mothers due to episiotomy and suturing. The investigator has noticed during her clinical experience that almost all the mothers experienced pain during episiotomy suturing. The investigator also found that different mothers responded differently to episiotomy suturing procedure due to various factors. So the investigator wanted to find out the effectiveness of breast crawl on the intensity of episiotomy suturing pain among primi mothers during episiotomy suturing which could show superior results on the reduction of pain during episiotomy suturing and increase in the success of breastfeeding.

**Alvare.Z.H, (2012),** conducted a study to assess the impact, feasibility and acceptability of breast crawl in a busy labor room in a tertiary care hospital in Nagpur, Maharashtra in 2012. A prospective single blinded, randomized controlled clinical trial was used for this study. Impact of breast crawl was studied in one group and the outcome was compared with the other group where breast crawl was not performed descriptive statistics and  $\chi^{(2)}$  analysis was applied to evaluate the questionnaire and to compare the outcome in the two groups. The results revealed that breast crawl had a significant positive impact on the onset of lactation as well as intensity of episiotomy suturing pain and behaviour of mother during suture. Breast

crawl results in positive short-term breastfeeding outcome but acceptability of breast crawl as a routine in a busy labor room remains a major issue.

**Gangal, (2012)**, highlighted that the importance of early initiation of breastfeeding. It is strongly recommended but not widely practiced in the maternity centers where importance is given only to the routine care and initiation of breastfeeding is delayed. Hence, the investigators are interested to assess the abilities of newborn to initiate breastfeeding through breast crawl and reduction of episiotomy pain during suturing.

The nurses as health care professionals if they work in co-ordination as a team to bring forth and promote breast crawl initiative into maternity hospitals, it will be beneficial for mother and baby as well as for the entire family and country. The investigator therefore conducts this study to find out the effectiveness of breast crawl technique on initiation of breastfeeding and intensity of episiotomy suturing pain among primi mothers. The initiation of breastfeeding soon after birth by breast crawl technique will contribute to healthy children and thereby healthy future citizens of our country.

## **STATEMENT OF THE PROBLEM**

A study to assess the effectiveness of breast crawl technique on initiation of breastfeeding and intensity of episiotomy suturing pain among primi mothers at Karpaga Vinayaga Institute of Medical Sciences and Research Centre in Kancheepuram District.

## **OBJECTIVES OF THE STUDY**

- ❖ To evaluate the effectiveness of breast crawl technique on initiation of breastfeeding among primi mothers.
- ❖ To identify the effectiveness of breast crawl technique on intensity of episiotomy suturing pain among primi mothers.
- ❖ To associate the selected demographic and obstetrical variables with initiation of breastfeeding among primi mothers.
- ❖ To associate the selected demographic and obstetrical variables with intensity of episiotomy suturing pain among primi mothers.

## **OPERATIONAL DEFINITIONS**

### **EFFECTIVENESS**

It refers to the extent to which the breast crawl technique promotes the initiation of breastfeeding and reduces the intensity of episiotomy suturing pain among primi mothers as measured by structured instrument during post test.

### **BREAST CRAWL**

It refers to the technique that when the newborn is placed in prone position on the primi mothers abdomen soon after birth they are able to propel themselves towards the nipple by using the limb movements, identify the nipple and start sucking without any assistance.

## **INITIATION OF BREASTFEEDING**

It refers to the ability of newborn to take breastfeed soon after birth for the first time without any assistance by breast crawl technique as measured by modified LATCH scale among primi mothers during post test.

## **INTENSITY OF EPISIOTOMY SUTURING PAIN**

It is an unpleasant, sensory subjective experience of intensity of pain perceived by primi mothers during suturing of episiotomy as precisely measured by numerical pain rating scale during post test.

## **PRIMI MOTHER**

Mother who was conceived for the first time, aged between 18-30 years and admitted for normal spontaneous full term vaginal delivery.

## **HYPOTHESES**

**H<sub>1</sub>** – There is a significant difference in the initiation of breastfeeding among newborn of the primi mothers who was subjected to breast crawl technique than those who do not.

**H<sub>2</sub>** – There is a significant difference in the intensity of episiotomy suturing pain among primi mothers who was subjected to breast crawl technique than those who do not.

## **DELIMITATIONS**

The study is delimited to

1. Mothers who are primi gravida and in third stage of labour, aged between 18-30 years.
2. Primi mothers who were able to understand Tamil or English.
3. Primi mothers admitted at the labor ward in Karpaga Vinayaga Medical Institution and Research Centre in Kancheepuram District during the period of study.

## **PROJECTED OUTCOME**

The findings of the study will help the nurses to assist the primi mothers to initiate the breastfeeding through breast crawl technique and reduce the perception of intensity of episiotomy suturing pain.

## **CHAPTER- II**

### **REVIEW OF LITERATURE**

The key step in research process is an extensive, exhaustive and systematic review of publications relevant to the research project. The review of literature is a written summary of the state of existing knowledge of research problems and conclusion. It involves systematic identification, location, scrutinization and summary of written material that contains information relevant to the research problem.

The related literature are organized and presented under the following headings.

- 1. Literature related to the breast crawl technique.**
- 2. Literature related to the initiation of breastfeeding.**
- 3. Literature related to the intensity of episiotomy suturing pain.**

#### **I. LITERATURE RELATED TO THE BREAST CRAWL TECHNIQUE**

**Righard and Alade, (2013)**, studied the effect of delivery room practices on early initiation of breastfeeding. In 72 newborns who have born normally were assigned in two groups. In the separated group (n=34), the newborn was placed on the mother's abdomen immediately after birth but taken away after 20 minutes for measuring and wrapping. These routines took about 20 minutes after which

newborns were replaced again to the mother. In the contact group (n=38), contact between mother and newborn was uninterrupted for at least an hour after birth. The suckling technique was studied in both groups. The results found that newborns in the contact group started to make crawling movements towards the breast about 20 minutes after birth and most of the newborns were suckled at the breast by 50 minutes.

**Widstrom, (2013)**, conducted a study to describe the ability of the newborn in first hour of life to find out, grasping of nipple and sucking, without the active participation of the mother. A total number of 21 newborns were under taken for the study among that 20 newborns completed breast crawl successfully. Newborns completed breast crawl with spontaneous attachment as it was their instinctive.

**Betty, (2012)**, conducted a study and reported that the newborn is prepared to suckle shortly after birth. Already the newborn has been making suckling motions in utero to suck and swallow the amniotic fluid. The newborn also has a rooting reflex that helps to turn and grasp the mother's nipple. The newborn adapts to breastfeeding readily.

**Walters, (2012)**, conducted a descriptive study on Kangaroo care at birth for full term newborns. A total of 9 participants were selected and data was gathered about newborn's temperature, blood glucose, latch and breast feeding behavior. The results found that birth kangaroo care increased the temperature ranged from 0.4°C to 1.5°C in 8 of 9 newborns. The group's mean blood glucose level was 65.13 mg/dl, 8 of 9 newborns independently moved from the mother's abdomen to the breast and latched between 22 to 74 minutes after birth. Two newborns latched on at 89

minutes. Additional observations of this study was, all the mothers reported that birth Kangaroo care was a positive experience and they were distracted reported from pain incurred by episiotomy repair. After two weeks follow- up, all the mothers reported that they have continued exclusive provision of mother's own milk.

**Wildstrom and Paulson, (2012)**, videotaped 11 mother/newborn pairs until a distinct rooting reflex was seen and they recorded the position of the tongue in the mouth cavity during rooting reflex elicited before the first suckle. The videotaped of the rooting reflex was analyzed and newborn awakes state was assessed according to the Braselton Neonatal Behavior Assessment Scale (BNBAS). Two important findings were observed from this research in relation to management of breastfeeding initiation. First, licking movement was proceed and followed by the rooting reflex in all except in two newborns (who were reported to be drowsy). Secondly, it was significantly more common that the tongue placed at the bottom of the mouth cavity during rooting reflex and for maximal opening of the mouth to occur when the head was turned to the side (seen in 10 out of 11 newborns). They proposed that healthy newborns have the competency to grasp the nipple and should be left until they show hunger and optimal reflexes capable of attaching to the nipple by themselves. Furthermore, when newborns are "helped" to attach to the breast is often the practice in hospitals; rooting reflexes are not optimally elicited and can even be distributed. Even gently forcing a crying newborn to the mother's breast might cause the newborn to instinctively place their tongue on their palate and at the next feed they may repeat the same reaction leading to preventable breastfeeding problems.



**Varendi and Porter, (2011)**, conducted a study to identify regarding breast odour maternal stimulus elicits crawling. Newborns sucked preferentially from an untreated breast rather than the alternative breast that had been washed to eliminate its natural odour. This study investigated the influence of breast odour on oriented physical movements of newborns. In total, 22 newborns were observed during two trials on a warming bed. In a trial a pad carrying the mother's breast odour was placed 17 cm in front of the newborns nose, in the other trial a clean pad was used. Most of the newborns moved towards and reached the breast pad than the clean pad. It concludes that natural breast odour unsupported by other maternal stimuli therefore appear to be sufficient to attract and guide newborns to the odour source. It's showed that within the first hour of birth, most of the newborns spontaneously selected a breast treated with amniotic fluid, rather than alternative untreated breast.

**Mehler, (2010)**, reported that the mother's voice is reported to be the most intense acoustic signal measured in the amniotic environment. Newborns are capable of responding to speech stimuli. Newborn prefer the sound of the maternal voice and also suckle for longer time when they hear it (DeCasper & Fifer, 1980; Fifer & Moon, 1994). They can discriminate the language that they hear in utero from another language

**Klaus & Kennel, (2009)**, explained that horizontal motion is achieved by using small pushups and lowering one arm first in the direction they wish to go. The ability to move its hand in a reaching motion enables the newborn to claim for the nipple. This helps to stimulate, elongate and protract the nipple. The stepping reflex helps the newborn to push against the mother's abdomen to propel themselves

towards the breast. Pressure from the newborns feet on the abdomen may also help to expel placenta and reduce uterine bleeding

**Elaine & Zwelling, (2008)**, highlighted that suckling reflex of newborn has been found to be the strongest immediately after birth. If the newborn is not fed, this reflex diminishes rapidly and reappears only after 40 hours. The first hour immediately after birth is the newborn's alert state, the period of reactivity. Promotion of sucking immediately after birth stimulates, release of oxytocin that promotes uterine contraction

**Fifer & Moon, (2008)**, revealed that oxytocin synthesis occurs in both the newborns and mother's brain when breastfeeding occurs. The stimuli for this release are the touch on the mother's nipple and the inside of the newborn's mouth. This oxytocin, acting on multiple oxytocin receptors in the brain plays the following roles, Stimulation of the vagal motor nucleus, releases 19 different gastro intestinal hormones including insulin, cholecystokinin and gastrin. Five of these 19 hormones stimulate growth of the newborn's and mother's villi and increase the surface area and the absorption of calories with each feeding. In mothers it results in slight sleepiness, euphoria, increased pain threshold and feeling of increased love for the newborn. It appears that, elevated blood level of oxytocin is associated with increased brain level; women who exhibit the highest plasma oxytocin are the sleepest during breastfeeding

**Klaus & Kennel, (2008)**, explained the transition of life from the womb to outside the uterus is made easy by the various sensory inputs in the breast crawl position. In this position, the newborn can experience sensations somewhat similar to

that of the intra-uterine life. It is likely that each of these features – the crawling ability of the newborn, the decreasing of crying when close to the mother, and the warming capabilities of the mother's chest are adaptive features that have evolved to help in preserving the newborn's life

**Nissen, et al., (2008)** proved that with the newborn in breast crawl position, the serum oxytocin was elevated significantly soon after delivery compared with that postpartum. The level returned to its pre-partum value an hour after delivery. The peak oxytocin level was seen 15 minutes after delivery with expulsion of placenta.

The above mentioned literatures represent the importance of early skin to skin contact and early initiation of breastfeeding. The basic component of the breast crawl is early skin to skin contact and early initiation of breastfeeding. Hence, the investigator is interested to assess the abilities of newborn to initiate breastfeeding through breast crawl.

## **II. LITERATURE RELATED TO THE INITIATION OF BREASTFEEDING**

**Gangal, (2013)**, explained the biggest advantage of breast crawl method is that, it ensures better mother, newborn bonding, helps to keep the newborn warm and facilitate early initiation of breastfeeding. Breast crawl helps in uterine contraction, enhances expulsion of the placenta, reduces maternal blood loss and prevents anaemia. It seems to distract mothers from discomfort during perineal repair.

**Karthwinkal, (2013)**, conducted a study on the significant of the timing of initiation of breastfeeding and different types of breastfeeding on neonatal death. The data were collected from 10,947 participants; breastfeeding was initiated within an hour in 43% of the newborns. Breastfeeding was initiated between one hour and the

end of the first day of birth in 28% of newborns, and by the end of day 3, 1.3% of newborns. Overall, 70% of the newborns were exclusively breastfed, 27% predominately breastfed and 2.1% partially breastfeed during the neonatal period. There was a marked response of increasing risk of neonatal mortality with increasing with delay initiation of breastfeeding from one hour to 7 days. Overall, late initiation (after day 1) was associated with a 2.4 fold increasing of neonatal mortality.

**Klaus and kennel, (2013)**, stated that birth practices like bathing, anthropometric assessment, and injection of vitamin K, application of eye ointment can affect breastfeeding particularly, the initiation. Hence, all these routines practices should be delayed for at least one hour. A newborn who has cried well does not need oro-nasal suction. If necessary, the secretion should be removed by soft cotton cloth or bulb sucker. Using suction tube will make injuries to the newborn's delicate mucosa which may interfere in feeding behavior. In order not to remove the taste and smell of the mother's amniotic fluid, it is also necessary to delay cleaning the newborn's hands. Since early hand suckling behavior is markedly reduced when newborn is bathed before breast crawl.

**Kumara, (2013)**, conducted a study by concerning the effect of early initiation of breastfeeding on newborns. The study was conducted with 100 participants. They found that 84% of newborns whose mothers breastfed in Labour Delivery Recovery room had an easy latch on. Results also indicated that breastfeeding in the Labour Delivery Recovery room decreased dietary supplementation with formula feed. 100% of the mothers who breastfed in Labour Delivery Recovery room intended to continue breastfeeding.

**Pandit, (2012)**, conducted a prospective study and reported that the influencing factors for initiation of breastfeeding in an urban setup. 100 women in early post partum period were included for the study. The aim of the study was to know the time of initiation of first breastfeed and to identify factors that could be responsible for the delayed initiation of breastfeeding. The results showed that only 6% of the mothers started breastfeeding within 2 hours after delivery. 32% mothers started breastfeeding within 24 hours, and the main reasons for delayed initiation of first breastfeeding was pain and tenderness. Other factors like inadequate milk, ignorance are also responsible for delayed initiation.

**Righard and Alade, (2012)**, studied about the effect of delivery room practice on early initiation of breast feeding. In that study, 72 newborns who have born normally were assigned in two groups. In the separated groups (n=34), the newborn was placed on the mother's abdomen immediately after birth but taken away after 20 minutes for measuring and wrapping. These routines took about 20 minutes after which newborns were replaced again to the mother. In the contact group (n=38), contact between mother and newborn was uninterrupted for at least an hour after birth. The result found that newborns in the contact group started to make crawling movement towards the breast about 20 minutes after birth and most of the newborns were suckled at the breast by 50 minutes.

**Salariya, (2012)** reported that early initiation of breastfeeding within 10 minutes of birth was related to longer duration of breastfeeding. They compared four groups of mothers, two of whom experienced early contact with their newborns (n=27 and n=26) and the other two groups (n=29 and n=27) who had delayed contact. Within the early and delayed contact groups, one subgroup breastfed second

hourly while the other group breastfed fourth hourly. They concluded that early initiation and frequent feeding had positive influence on longer duration of breastfeeding. Within the early and delayed contact groups, one subgroup breastfed second hourly while the other group breastfed forth hourly. They concluded that early initiation and frequent feeding had positive influence on longer duration of breastfeeding.

**Wildstrom, (2012)**, described the ability of the newborn in first hour of life to find out, grasping of nipple and suckling, without the active participation of the mother. A total number of 21 newborns were undertaken for the study among that 20 newborns completed breast crawl successfully. Newborns completed the breast crawl with spontaneous attachment as it was their instinctive.

**Arvidson, (2011)**, performed a study to assess the effect of different types of analgesia during labour on the development of spontaneous breastfeeding movements, crying behavior and skin temperature during the first hour of life in healthy term newborns. Video recording were made of 28 newborns had been dried and placed in skin to skin contact between their mother's breasts immediately after delivery. Group 1 mothers (n=10) received no analgesia during labour, group 2 mothers (n=6) received mepivacaine via pudendal block and group 3 mothers (n=12) received pethidine or bupivacaine or more than one type of analgesia during labour. Results found that all newborns made figure and hand movements. But the massage like hand movements were less frequent in newborns, whose mothers received labour analgesia. A significantly lower proportion of the newborns in group 2 and 3 touched the nipple with their hands before suckling, made licking movements, and sucked the breast. Nearly one half of the newborns, in group 2 or 3, did not breastfeed within the

first 2.30 hours of life. The newborns whose mothers received analgesia during labour had higher temperature and they cried more than newborns of the mothers who have not received any analgesia.

**Kartikeya and Bhagat, (2011)**, conducted a study that states the early skin to skin contact helps to maintain the newborn's body temperature, helps in colonization of the maternal bacterial flora, maintains newborn's sugar level. It improves metabolic stability, enhances maternal-newborn relationship and earlier establishment of effective suckling and feeding behavior. All these enhance the newborn's sensory, neural development. These newborns cry less, emotionally more stable and are at a lower risk of abandonment.

**Marshall Klaus, (2011)**, conducted a study on breast crawling among mothers and infants. The researcher observed that if an infant's lips touched her mother's nipple in the first hour of life. It should be noted when the infant suckles from breast there is an outpouring of 19 different gastro-intestinal hormones in both the mother and the infant. This increases oxytocin in both the mother's brain and the infant's brain, which stimulates the Vagus nerve, then causes the increase in the output of gastro-intestinal hormones and early expulsion of placenta and minimal blood loss.

**W. Jonas, (2011)**, explained that every newborn, when placed on her mother's abdomen, soon after birth, has the ability to find her mother's breast all on her own and to decide when to take the first breastfeed. This is called the "Breast crawl." It was first described in 1987 at the Karoliuska Institute in Sweden. The breast crawl is associated with a variety of sensory, central, motor and

neuroendocrine components. When the baby massages the breast and subsequently suckles, a large oxytocin surge is induced from the mother's pituitary gland into her bloodstream. This oxytocin helps to contract the uterus, expelling the placenta and closing off many blood vessels in the uterus, thus reducing blood loss and preventing anemia.

**D.W. Irons., (2010),** conducted a study to determine the effect of nipple stimulation on uterine activity during the third stage of labour. Randomized sampling technique was used (i) Nipple stimulation was given for 6 samples up to 15 minutes, (ii) Regular oxytocin injection was given for 3 samples. Uterine activity was continuously measured using the placenta as in-situ hydrostatic bag connected to a pressure transducer. Uterine pressure was 103 mm of Hg in the nipple stimulation group, whereas in control group it was 70.8 mm of Hg. The duration of the third stage and blood loss tended to be reduced with nipple stimulation compared to control (20.3 versus 12.3 minutes) and (257 versus 166 ml).

**R. Cordan, (2010),** cited that early and frequent suckling through breast crawl may increase prolactin receptors in the breast making milk production more effective. According to the statistical report that initial breast feeding rates were 78% in England, 70% in Scotland, 67% in Wales, and 63% in Northern Ireland (Infant Feeding Survey, 2005).

**Ann- Marie Wildstron, (2009),** conducted a study on short term effects of early crawling and touches of the nipple on maternal behavior in Karolinska hospital, Sweden. The aim of this study was to evaluate the effects of breast crawling within 30 minutes after birth. Where skin to skin body contact for mothers and infants was



held constant in both cases (n=32) and not in control groups (n=25). Median gastrin levels were significantly lower in cases than in controls both before ( $p<0.01$ ) and after ( $p<0.03$ ) breastfeeding. In conclusion, the infant's early touch of the mother's areola and nipple seemed to have positively influenced the mother/ infant relationship during the first four days after birth.

**Bullough.C.H, (2009)**, conducted a study on early sucking and post partum hemorrhage. A randomized controlled trial was carried out to determine whether suckling immediately after birth reduced the frequency of post partum hemorrhage blood loss and retained placenta. The trial subjects were attended by dais. 68 daises attended a course on third stage management and data collection. 23 in the early sucking group and 26 in the control group recorded blood loss in 2104 and 2123, 34 deliveries of live born singletons respectively the frequency of postpartum hemorrhage was 7.9 in the suckling group and 8.4% in the control group and the mean blood loss 258 ml and 256 ml respectively.

**Matheson.A.S, (2009)**, conducted a study on post partum maternal oxytocin release by newborns when breast crawling and the effect of infant hand massage and suckling. Ten vaginally delivered infants whose mothers had not been exposed to maternal analgesia were video recorded from birth until the first breastfeeding. Each infants hand, fingers, mouth and tongue moments, positions of the hand, body and suckling 33 behaviors were assessed every 30 seconds. The newborns use their hands as well as their mouth to stimulate maternal oxytocin release after birth which may have significance for uterine contractions, milk ejection and mother infant interaction.

**Urvas-Moberg, (2009)**, conducted a study on early contact versus separation. The purpose of this study was to evaluate and compare possible long- term effects on mother- infant interaction of practices used in the delivery and maternity centre. A total of 176 mothers infant pairs and were randomized into four experimental groups. Episodes of early sucking in the delivery ward were noted. The practice of skin contact, early sucking or both during the first 2 hours after birth when compared with separation between the mothers and their infants positively affected. Skin to skin contact for 25 to 120 minutes after birth, early sucking, or both positively influenced mother – infant interaction 1 year later when with separation of mother and infant.

### **III. LITERATURE RELATED TO THE INTENSITY OF EPISIOTOMY SUTURING PAIN**

**Alvare.Z.H, (2012)**, assessed the Impact, feasibility and acceptability of breast crawl in a busy labor room in a tertiary care hospital in Nagpur, Maharashtra in 2012. A prospective single blinded, randomized controlled clinical trial was used for this study. Impact of breast crawl was studied in one group and the outcome was compared with the other group where breast crawl was not performed Descriptive statistics and  $\chi^{(2)}$  analysis was applied to evaluate the questionnaire and to compare the outcome in the two groups. The results revealed that Breast crawl had a significant positive impact on the onset of lactation as well as extent of neonatal weight loss on day 3. Breast crawl results in positive short-term breast feeding outcome but acceptability of breast crawl as a routine in a busy labor room remains a major issue.

**Gangal, (2012)**, explained that the biggest advantage of breast crawl method ensures better mother, newborn bonding, helps to keep the newborn warm and facilitate early initiation of breastfeeding. Breast crawl helps in uterine contraction, enhances expulsion of the placenta, reduces maternal blood loss and reduces the perception of episiotomy suturing pain. It seems to distract mothers from discomfort during perineal repair.

**Magnn, (2012)**, examined the association between breastfeeding initiation time and neonatal mortality in rural villages of Tamil Nadu, India in 2011 where breastfeeding initiation varies widely from region to region among 10,464 newborns. Data were collected as part of a community-based, randomized, placebo-controlled trial of the impact of vitamin A supplementation. Multivariate binomial regression analysis was used to estimate the association between neonatal mortality and breastfeeding initiation time (<12 hours, 12 to 24 hours, >24 hours) among infants surviving a minimum of 48 hours. The result revealed that Late (>24 hours) initiation of breastfeeding is associated with a higher risk of neonatal mortality in Tamil Nadu. Emphasis on breastfeeding promotion programs in low-resource settings of India where early initiation is low could significantly reduce the neonatal mortality rate.

**Path, (2012)**, conducted a study to assess breastfeeding knowledge and practices and the factors influencing them among women in rural Punjab, India in 2005-2006 by standard cluster sampling. The sample size was 1000 women. Statistical analysis was done by percentages compared with the  $\chi^2$  test. The results revealed that Two hundred twenty-five respondents (23.8%) started breastfeeding

their babies on the first day of birth, but in terms of early breastfeeding only 128(13.5%) respondents put their babies on the breast within 4 hours of birth. Of the 1,000 respondents, 356 (35.6%) of the respondents were unaware of the importance of the colostrum, 733(77.6%) were not given advice on benefits of the breastfeeding/weaning, and 306 (33.5%) of respondents had not increased their diet during lactation. Early breastfeeding knowledge and practices were suboptimal among the mothers in rural Punjab. Health education on breastfeeding and nutrition remains the dark area. Research and public health efforts like one-to-one "breastfeeding counseling and health education on nutrition" to the mother by health workers should be promoted.

**Betty, (2011)**, reported that the newborn is prepared to suckle shortly after birth. Already the newborn has been making suckling motions in utero to suck and swallow the amniotic fluid. The newborn also has a rooting reflex that helps to turn and grasp the mother's nipple. The newborn adapts to breastfeeding readily by the breast crawl method and there is reduction of episiotomy suturing pain due to the mothers attention seeks by the baby so that the mothers are not feeling severe pain during the episiotomy suturing.

## CONCEPTUAL FRAME WORK

Conceptual frame work acts like maps that give coherence empirical enquiry. Because conceptual frame work are potential close to empirical enquiry. They take different forms depending upon the research question or problem. **Kozier, (2011)** conceptual frame work provides a certain frame for clinical practice, research and education. It gives direction and guidance for structuring research.

The present study is based on the concept of early initiation of breastfeeding and reduction of intensity of episiotomy suturing pain through breast crawl technique among primi mothers. The investigator adopted the **Modified Kristen M. Swanson Theory of Caring (2011)** for this study. Swanson states that caring is a nurturing way of relating to a valued other towards the primi mother feels a personnel sense of commitment and responsibility by midwife's.

The caring model in, which Swanson proposed that five basic processes. Those are maintaining belief, knowing, being with, doing for, enabling. **Maintaining belief (Instilling hope)** is sustaining faith in the others capacity to get an event or transition and face future with meaning. **Knowing (Empathy)** is striving to understand the meaning of events in the life of others. **Being with (presence)** means sharing feelings without burdening the one cared for. **Doing for (Evidence based practice)** means to do for others what one would do for self if at all possible. **Enabling (Empowerment)** is facilitating the others passage through life transition and unfamiliar events by focusing the others.

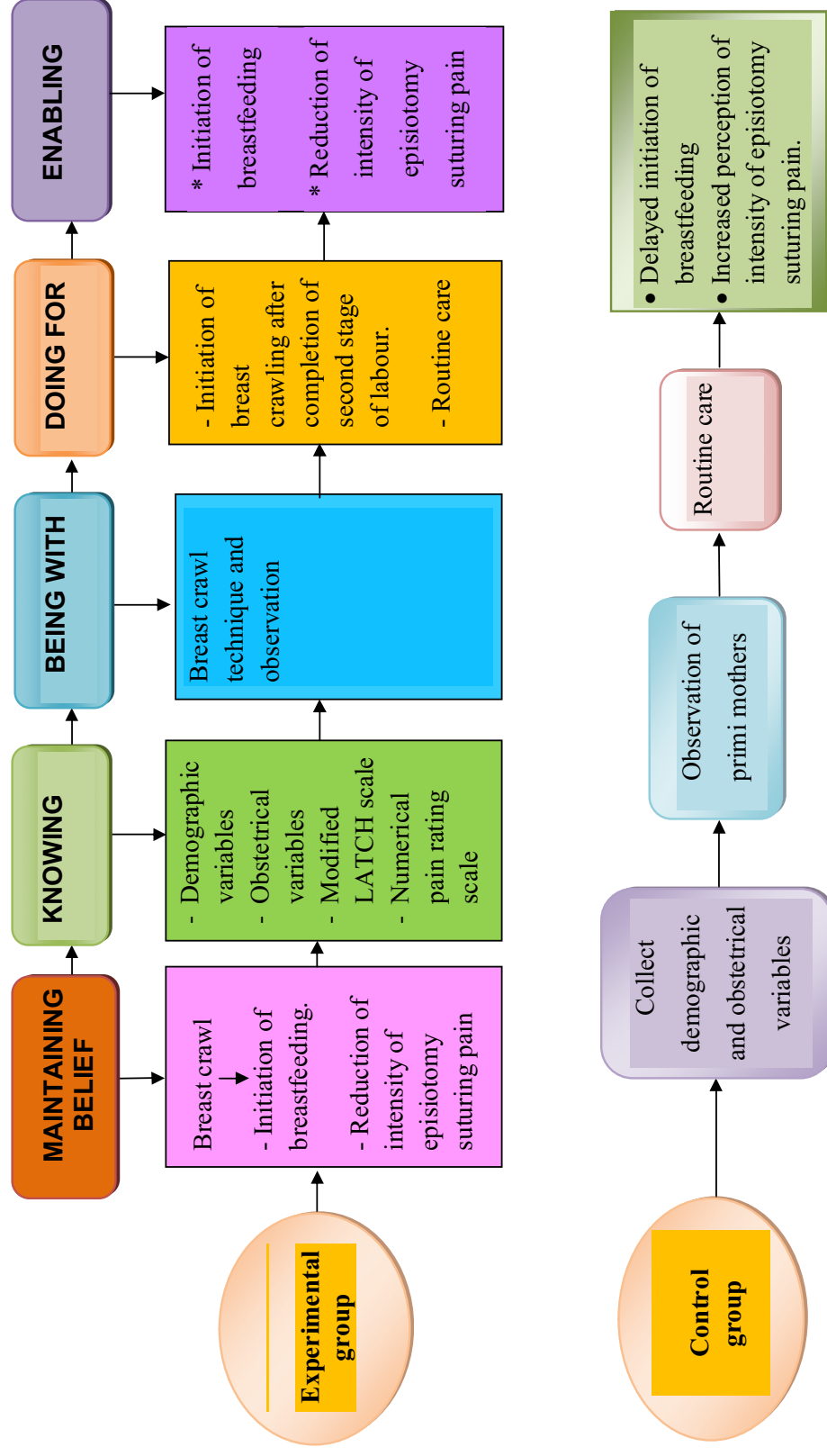


FIG. 1 CONCEPTUAL FRAME WORK BASED ON MODIFIED KRISTEN M. SWANSON THEORY OF CARING

The investigator will create the belief among primi mothers of experimental group that breast crawl technique immediately after the birth of newborn will enhance the early initiation of breastfeeding and will reduce the perception of intensity of episiotomy suturing pain. The primi mothers will be given adequate explanation about the breast crawl and demographic, obstetrical variables will be collected by using structured instruments. Soon after delivery, the newborn will be kept on primi mother's abdomen among experimental group, whereas control group primi mothers will be subjected to routine care. Post test will be done for both the group by using modified LATCH scale and numerical pain rating scale to assess the ability of the newborn to initiate breastfeeding and primi mother's perception of intensity of episiotomy suturing pain respectively. These assessments will enable the investigator to identify the effectiveness of breast crawl technique on initiation of breastfeeding and intensity of episiotomy suturing pain among primi mothers.

## CHAPTER – III

### METHODOLOGY

This chapter describes the structural frame work of the study. It also describes the rationale for research approach, research design, variables, setting of the study, population, sample, sample size, sampling technique, criteria for sample selection, selection of the tool, development and description of the tool and score interpretation, validity of the instrument, reliability of the tool, pilot study, data collection procedure, plan for data analysis and ethical consideration relevant to this study.

#### RESEARCH APPROACH

A quantitative research approach was adopted for this study.

#### RESEARCH DESIGN

A randomized controlled trail with post test only design was adopted for this study.

Table – I

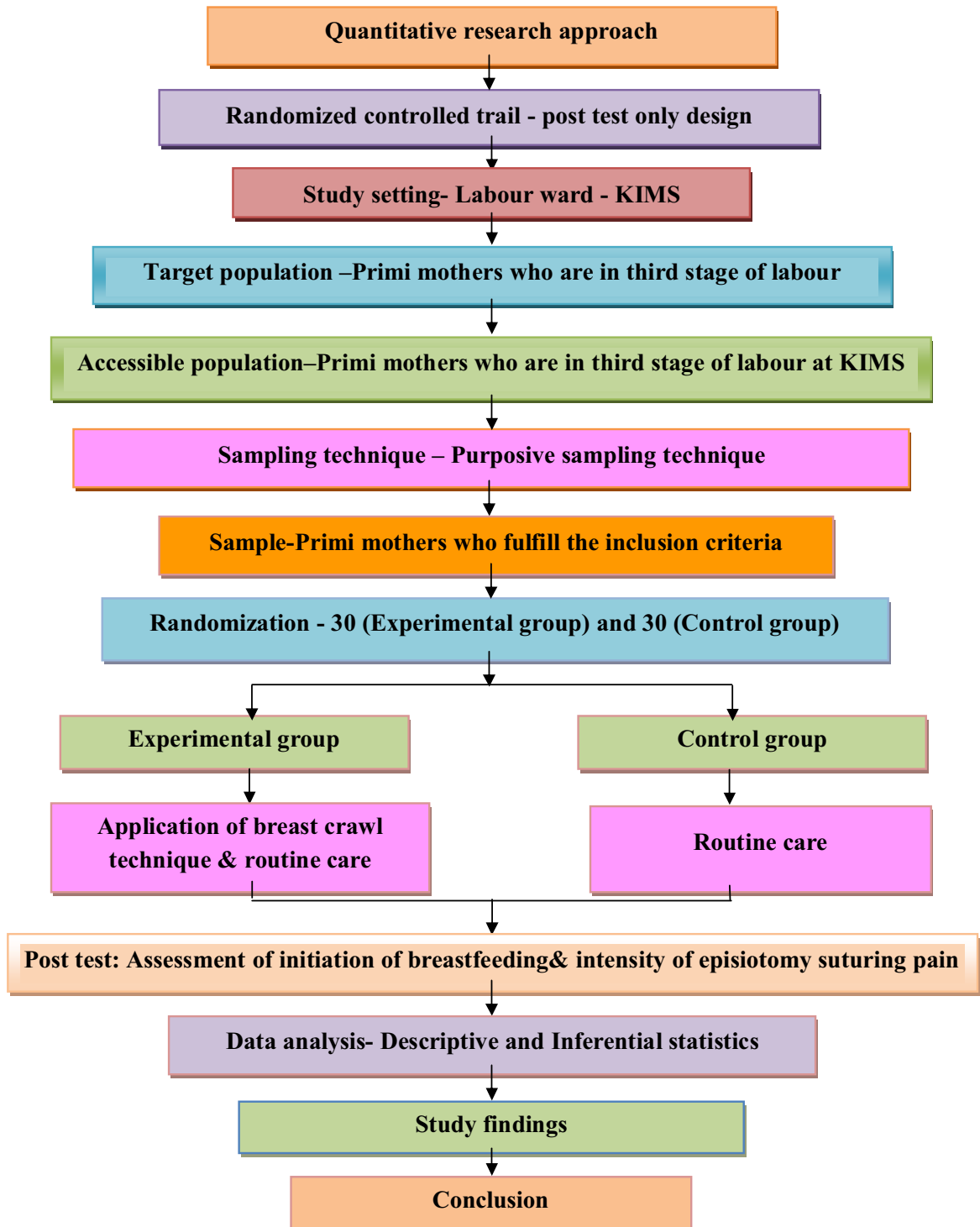
| Group                 | Intervention | Post test      |
|-----------------------|--------------|----------------|
| R -Experimental group | X *          | O <sub>1</sub> |
| R - Control group     | - *          | O <sub>1</sub> |

#### Schematic Representation of Research Methodology

|                      |   |   |
|----------------------|---|---|
| <b>R</b>             | - | Randomization                           |
| <b>X *</b>           | - | Breast crawl technique and routine care |
| <b>O<sub>1</sub></b> | - | Post–test                               |
| <b>- *</b>           | - | Routine care                            |



**FIG.2. SCHEMATIC REPRESENTATION OF RESEARCH METHODOLOGY**



## **VARIABLES**

**Independent variable:** Breast crawl technique

**Dependent variables:** Initiation of breastfeeding and intensity of episiotomy suturing pain

## **SETTING OF THE STUDY**

This study was conducted in the labour ward at Karpaga Vinayaga Institute of Medical Sciences and Research Centre, Chinnakolampakkam, Maduranthagam Taluk, Kancheepuram District. It has 100 beds in obstetrics unit and 2 labour units. Each labour unit has got 4 labour tables. The average monthly normal spontaneous full term vaginal delivery is 60-80. Each labour unit is designed with the state of the art technology in relation to the good maternal and fetal outcome.

## **POPULATION**

### **Target population**

It refers to primi mothers in third stage of labour

### **Accessible population**

It refers to the primi mothers who were admitted at labour ward in Karpaga Vinayaga Institute of Medical Sciences and Research Centre, Kancheepuram District from which sample were drawn.

## **SAMPLE**

It refers to the primi mothers admitted at Karpaga Vinayaga Institute of Medical Sciences and Research Centre, Kancheepuram District, who were in third stage of labour and fulfils the inclusion criteria.

## **SAMPLE SIZE**

A total of 60 samples were recruited for this study which composed of 30 each in experimental and control group.

## **SAMPLING TECHNIQUE**

Purposive sampling technique was adopted to recruit the sample from the accessible population.

## **CRITERIA FOR SAMPLE SELECTION**

### **Inclusion criteria**

- Primi mothers aged 18- 30 years who were undergoing full term normal spontaneous vaginal delivery.
- Primi mothers with newborn and Apgar score more than 7.
- Primi mothers who were willing to participate in the study.
- Primi mothers who were able to talk and understand the language Tamil or English.

### **Exclusion criteria**

- Primi mothers who had high risk conditions.
- Primi mothers who had nipple abnormalities like cracked nipple.
- Newborn who had high risk conditions.

### **SELECTION OF THE TOOL**

The standardized structured instrument was selected that included modified LATCH scale and Numerical pain rating scale to identify the effectiveness of breast crawl technique on initiation of breastfeeding and intensity of episiotomy suturing pain among primi mothers at Karpaga Vinayaga institute of Medical Sciences and Research Centre. A thorough review of literature, suggestions from guide and experts helped in the selection and development of the tool for this study.

### **DEVELOPMENT AND DESCRIPTION OF THE TOOL**

The structured instrument composed of 4 parts, which included

**Part - I** Demographic variables

**Part - II** Obstetrical variables

**Part - III** Modified LACTH scale

**Part - IV** Numerical Pain Rating scale

## **Part - I**

### **Demographic variables**

It was devised by the investigator which consists of demographic variables like age of the primi mother's, religion, educational status of primi mother's, occupational status of primi mother's, occupational status of spouse, family income / month (Rs), type of the family, diet pattern of the primi mother's, and residence of primi mother's.

## **Part - II**

### **Obstetrical variables**

It was designed by the investigator which included age at menarche, age at marriage, type of marriage, gestational age, birth weight of the newborn and Apgar score. The Apgar score of the newborn is a method used to evaluate the neonate at birth within 60 seconds after birth. The scoring system was developed by Dr. Virginia Apgar (1952) in which there are 5 objective signs which are evaluated and scored 0, 1 or 2 to determine the condition of the baby at birth and as a guide to subsequent care. The 5 objective signs are appearance, pulse, grimace, activity and respiration. This tool is highly reliable ( $r = 0.97$ ).

## **Part - III**

### **Modified LATCH scale**

This scale was constructed by Jenson D, Wallace S, Kelsay P (1994) to assess the initiation of breastfeeding. It encompassed the criteria for newborn's ability to crawl,

latch, sucking, audible, and swallowing, length of time before latch on. The criteria for mothers include type of nipple, condition of breast and nipple, ability to hold the newborn and after pain. The score was given based on observation by the investigator during the breast crawl.

#### **Part - IV**

##### **Numerical pain rating scale**

This instrument was devised by Mc. Caffery, Beebe, et. al, (1989). It is an 11 point rating scale used to assess the subjective experience of intensity of pain for adults by self- report. It is a segmented numerical version of the Visual Analog Scale, in which a study participant selects a whole number (0-10 integers) that best reflects the intensity of their pain. It is reliable tool ( $r = 0.97$ ).

#### **SCORE INTERPRETATION**

##### **Part – I Demographic variables**

The numerical values were assigned for the demographic variables.

##### **Part – II Obstetrical variables**

The numerical values were assigned for the obstetrical variables for the item 1-5. The item number 6 is a Apgar scale which has a minimum score of '0' and maximum '10'. A score of 5 to 10 interprets that the newborn is safe and request no special treatment. A score of below 5 calls for immediate attention and assistance along with

continuous observation in the special care nursery. A score 0-3, 4-6 and 7-10 are categorized as severely depressed, moderately depressed and excellent condition.

### **Part – III Modified LATCH scale**

The modified LATCH scale which assigns a numerical score (0, 1 or 2) to nine key breastfeeding components. The total score ranges from 0-18. The scores were categorized as follows.

0-4- Notable to initiate breastfeeding through breast crawl

5-10- Need assistance to initiate breastfeeding through breast crawl

11-18- Actively initiated breastfeeding through breast crawl

The total score of 0-4, 5-10 and 11-18 were interpreted as worst, better and good respectively.

### **Part – IV Numerical pain rating scale**

This is a numerical pain rating scale which has a minimum score '0' and maximum score of '10'. An 11 point numerical scale with '0' representing one pain extreme that is "no pain" and '10' representing the other pain extreme that is "severe pain". It depends on the number that the participant indicates on the scale to rate their pain intensity. The total score was categorized as follows.

1 – 3 = mild pain

4 – 6 = moderate pain

7 – 10 = severe pain

## **VALIDITY OF THE TOOL**

The content validity of the tool was done by the experts in the field of nursing and obstetric specialty. The suggestions given by the experts were incorporated in this study and the tool was finalized.

## **RELIABILITY OF THE TOOL**

The reliability of the Apgar scale score, modified LATCH scale and numerical pain rating scale were established by the test retest method the “r” value was calculated by using Karl Pearson’s coefficient correlation which were 0.97, 0.98 and 0.97 respectively.

## **PILOT STUDY**

The written permission was obtained from the respective authority of Karpaga Vinayaga Institute of Medical Sciences and Research Centre, Kancheepuram District. The pilot study was conducted to find out the feasibility and practicability of the study. The study was conducted from 7/11/2014 to 14/11/2014. The primi mothers who were in the third stage of labour and fulfilled the sampling criteria were included. A total of 10 participants were included out of which each 5 were assigned to experimental and control group.

The tool was found to be reliable (0.98). The breast crawl technique was feasible for the study participants. There were no practical problems encountered during the course of study.



## **DATA COLLECTION PROCEDURE**

The formal permission was obtained from the authority of Karpaga Vinayaga Institute of Medical Sciences and Research Centre, Kancheepuram District. The data collection was done for the main study from 1/1/2015 to 14/2/2015. The participants for the main study were selected by purposive sampling technique. The study was conducted in obstetrics and gynecological department at Karpaga Vinayaga Institute of Medical Sciences and Research Center, Maduranthagam Taluk, Kancheepuram District. Each normal newborn after birth who satisfied the inclusion criteria was randomized into either the experimental group or control group. Inclusion criteria were all babies delivered by a normal spontaneous full term vaginal delivery and all babies who cried immediately after birth and didn't recover resuscitation. Exclusion criteria were baby who didn't cry after birth and requiring resuscitation. The primi mothers were informed about the concept of breast crawl technique in brief during the last antenatal visit and obtained informed consent.

In experimental group, soon after the delivery the baby was cried and umbilical cord was clamped and cut. Then baby was put on the mother's abdomen. Before that the baby was completely dried except the hands still wet to facilitate the crawling and the baby was shown to the mother. The mother's abdomen was covered with a thin cotton cloth to enhance the support of baby crawling. The investigator observed and recorded the length of the time before latch on and sucking of the breast milk and assessed the

initiation of breastfeeding by using modified LATCH scale. After allowed the baby to crawl for about 30-60 minutes for the first breastfeed. Simultaneously the baby crawl facilitated the expulsion of placenta and investigator assessed the mother's perception of episiotomy suturing pain by using numerical pain rating scale. Finally the newborn was taken for routine care.

In control group, after delivery the newborn cried and the umbilical cord was clamped and cut and the newborn was taken for the routine procedure before that baby was shown to the mothers. Then the baby was wrapped in the cloth and given to the mother for feeding. The investigator observed and recorded the length of the time to initiation of breastfeeding by using modified LATCH scale and primi mother's perception of pain during episiotomy suturing was assessed by using numerical pain rating scale. The demographic and obstetrical variables were collected from the clinical records and personal interview.

#### **PLAN FOR DATA ANALYSIS**

The plan of data analysis was drawn on the basis of objectives and testing of hypothesis by using descriptive and inferential statistics.

**TABLE – II****PLAN FOR DATA ANALYSIS**

| <b>S.no</b> | <b>Data analysis</b>   | <b>Methods</b>       | <b>Remarks</b>  |
|-------------|------------------------|----------------------|---|
| 1           | Descriptive statistics | Frequency percentage | To describe the demographic obstetrical variables, initiation of breastfeeding and intensity of episiotomy suturing pain of primi mothers among experimental and control group.                   |
| 2           | Inferential statistics | Independent ‘t’ test | To compare the post test score on initiation of breastfeeding and intensity of episiotomy suturing pain of primi mothers among experimental and control group.                                    |
|             |                        | Chi square test      | To associate the selected demographic and obstetrical variables with initiation of breastfeeding and intensity of episiotomy suturing pain of primi mothers among experimental and control group. |

## **CHAPTER-IV**

### **DATA ANALYSIS AND INTERPRETATION**

This chapter deals with the statistical analysis which enable the researcher to summarize organize, evaluate, interpret and communicate the numerical information. Descriptive and inferential statistics were used for the analysis of the data, as per the objective of the study. The interpretations are organized and tabulated under 3 sections.

#### **ORGANISATION OF FINDINGS**

##### **SECTION – A**

Distribution of demographic, obstetrical variables, initiation of breastfeeding and intensity of episiotomy suturing pain among experimental and control group.

##### **SECTION – B**

Comparison of initiation of breastfeeding and intensity of episiotomy suturing pain between experimental and control group.

##### **SECTION – C**

Association of selected demographic and obstetrical variables with initiation of breastfeeding and intensity of episiotomy suturing pain among experimental and control group.

## SECTION-A

**TABLE-2**

**DISTRIBUTION OF DEMOGRAPHIC VARIABLES AMONG EXPERIMENTAL  
AND CONTROL GROUP**

**N=60**

| S.no | Demographic variables                |                        | Group        |      |         |      |
|------|--------------------------------------|------------------------|--------------|------|---------|------|
|      |                                      |                        | Experimental |      | Control |      |
|      |                                      |                        | No           | %    | No      | %    |
| 1    | Age of the primi mothers             | 18-20 years            | 2            | 6.7  | 4       | 13.3 |
|      |                                      | 21-25 years            | 22           | 73.3 | 8       | 26.7 |
|      |                                      | 26-30 years            | 6            | 20.0 | 18      | 60.0 |
| 2    | Religion                             | Hindu                  | 15           | 50.0 | 12      | 40.0 |
|      |                                      | Christian              | 11           | 36.7 | 13      | 43.3 |
|      |                                      | Muslim                 | 4            | 13.3 | 5       | 16.7 |
| 3    | Educational status of primi mothers  | Literate               | 11           | 36.7 | 12      | 40.0 |
|      |                                      | Primary                | 10           | 33.3 | 9       | 30.0 |
|      |                                      | Secondary              | 7            | 23.3 | 7       | 23.3 |
|      |                                      | Graduate               | 2            | 6.7  | 2       | 6.7  |
| 4    | Occupational status of primi mothers | Home maker             | 15           | 50   | 14      | 46.7 |
|      |                                      | Daily labour           | 13           | 43.3 | 9       | 30.0 |
|      |                                      | Professional           | 0            | 0.0  | 0       | 0.0  |
|      |                                      | Business               | 2            | 6.7  | 7       | 23.3 |
| 5    | Occupational status of the spouse    | Daily labour           | 13           | 43.3 | 12      | 40.0 |
|      |                                      | Driver                 | 6            | 20.0 | 6       | 20.0 |
|      |                                      | Professional           | 5            | 16.7 | 6       | 20.0 |
|      |                                      | Business               | 6            | 20.0 | 6       | 20.0 |
| 6    | Family income/ month (Rs)            | Below Rs 5,000         | 11           | 36.7 | 12      | 40.0 |
|      |                                      | Rs 5,001 to Rs 10,000  | 7            | 23.3 | 7       | 23.3 |
|      |                                      | Rs 10,001 to Rs 15,000 | 9            | 30.0 | 8       | 26.7 |
|      |                                      | Above Rs 15,000        | 3            | 10.0 | 3       | 10.0 |
| 7    | Type of family                       | Nuclear                | 15           | 50.0 | 12      | 40.0 |
|      |                                      | Joint                  | 9            | 30.0 | 6       | 20.0 |
|      |                                      | Extended               | 6            | 20.0 | 12      | 40.0 |
| 8    | Diet pattern of the primi mothers    | Vegetarian             | 5            | 16.7 | 14      | 46.7 |
|      |                                      | Non-Vegetarian         | 5            | 16.7 | 4       | 13.3 |
|      |                                      | Mixed diet             | 20           | 66.7 | 12      | 40.0 |
| 9    | Residence of the primi mothers       | Rural                  | 19           | 63.3 | 20      | 66.7 |
|      |                                      | Urban                  | 11           | 36.7 | 10      | 33.3 |

The above mentioned table shows the distribution of demographic variables of primi mothers. With respect to the age of the primi mothers, out of 60, 22 (73.3%) mothers were aged between 21–25 years in experimental group and 18 (60.0%) primi mothers were aged between 26–30 years in control group.

The distribution of religion among primi mothers discloses that 15 (50.0%) primi mothers were Hindu in the experimental group and 13 (43.3%) primi mothers were Christian in control group.

Regarding their educational status of primi mothers, 11 (36.67%) primi mothers were literate in experimental group, whereas 12 (40.00%) it was in control group.

On considering the occupational status of the primi mothers, 15 (50.0%) and 14(46.7%) were home makers in experimental and control group respectively.

Consider with regard to the occupational status of the spouse, 13(43.3%) and 12 (40.0%) were coolie in experimental and control group respectively.

The distribution of their family income/ month (Rs) reveals that 11 (36.7%) and 12 (40.0%) had up to Rs 10.000/ month in experimental and control group respectively.

According to the type of family, 15 (50.0%) primi mothers were living in nuclear family in experimental group whereas 12 (40.0%) were in control group.

On considering their diet pattern of the primi mothers, 20 (66.7%) primi mothers used to consume mixed diet in experimental group and 14 (46.7%) primi mothers were vegetarians in control group.

The distribution their residence of the primi mothers depicts that, 19 (63.3%) primi mothers were living in rural area in experimental group and it was 20 (66.7%) in control group.

**TABLE- 3**

**DISTRIBUTION OF OBSTETRICAL VARIABLES AMONG EXPERIMENTAL  
AND CONTROL GROUP**

**N=60**

| S.No | Obstetrical variables       |                      | Group        |      |         |      |
|------|-----------------------------|----------------------|--------------|------|---------|------|
|      |                             |                      | Experimental |      | Control |      |
|      |                             |                      | No           | %    | No      | %    |
| 1    | Age at menarche             | 10 – 11 years        | 3            | 10.0 | 11      | 36.7 |
|      |                             | 12 – 13 years        | 19           | 63.3 | 9       | 30.0 |
|      |                             | 14 – 15 years        | 8            | 26.7 | 7       | 23.3 |
|      |                             | 16 – 17 years        | 0            | 0.0  | 3       | 10.0 |
| 2    | Age at marriage             | ≤18 years            | 2            | 6.7  | 8       | 26.7 |
|      |                             | 19 – 22 years        | 10           | 33.3 | 5       | 16.7 |
|      |                             | 23 – 26 years        | 14           | 46.7 | 10      | 33.3 |
|      |                             | 27 – 30 years        | 4            | 13.3 | 7       | 23.3 |
| 3    | Type of marriage            | Maternal relation    | 4            | 13.3 | 6       | 20.0 |
|      |                             | Paternal relation    | 8            | 26.7 | 7       | 23.3 |
|      |                             | Non – consanguineous | 18           | 60.0 | 17      | 56.7 |
| 4    | Gestational age             | ≤36 wks              | 2            | 6.7  | 6       | 20.0 |
|      |                             | 37 – 38 wks          | 12           | 40.0 | 16      | 53.3 |
|      |                             | 39 – 40 wks          | 16           | 53.3 | 6       | 20.0 |
|      |                             | Above 40 wks         | 0            | 0.0  | 2       | 6.7  |
| 5    | Birth weight of the newborn | <2.5 kg              | 1            | 3.3  | 18      | 60.0 |
|      |                             | 2.5 – 3.00 kg        | 22           | 73.3 | 7       | 23.3 |
|      |                             | Above 3.00 kg        | 7            | 23.3 | 5       | 16.7 |
| 6    | Apgar score of the newborn  | 0 – 3                | 0            | 0.0  | 0       | 0.0  |
|      |                             | 4 – 6                | 4            | 13.3 | 15      | 50.0 |
|      |                             | 7 – 10               | 26           | 86.7 | 15      | 50.0 |

The above mentioned table shows the distribution of obstetrical variables among primi mothers. With respect to the age at menarche, out of 60 primi mothers, 19 (63.3%) were between 12–13 years in experimental group and 11 (36.7%) were between 10–11 years in control group.

With relevance to the age at marriage, 14 (46.7%) mothers were aged between 23–26 years in experimental group, 10(33.3%) were aged between 23–26 years in control group.

Out of 60 primi mothers 18(60.0%) had non-consanguineous type of marriage in experimental group, whereas it was 17(56.7%) in control group.

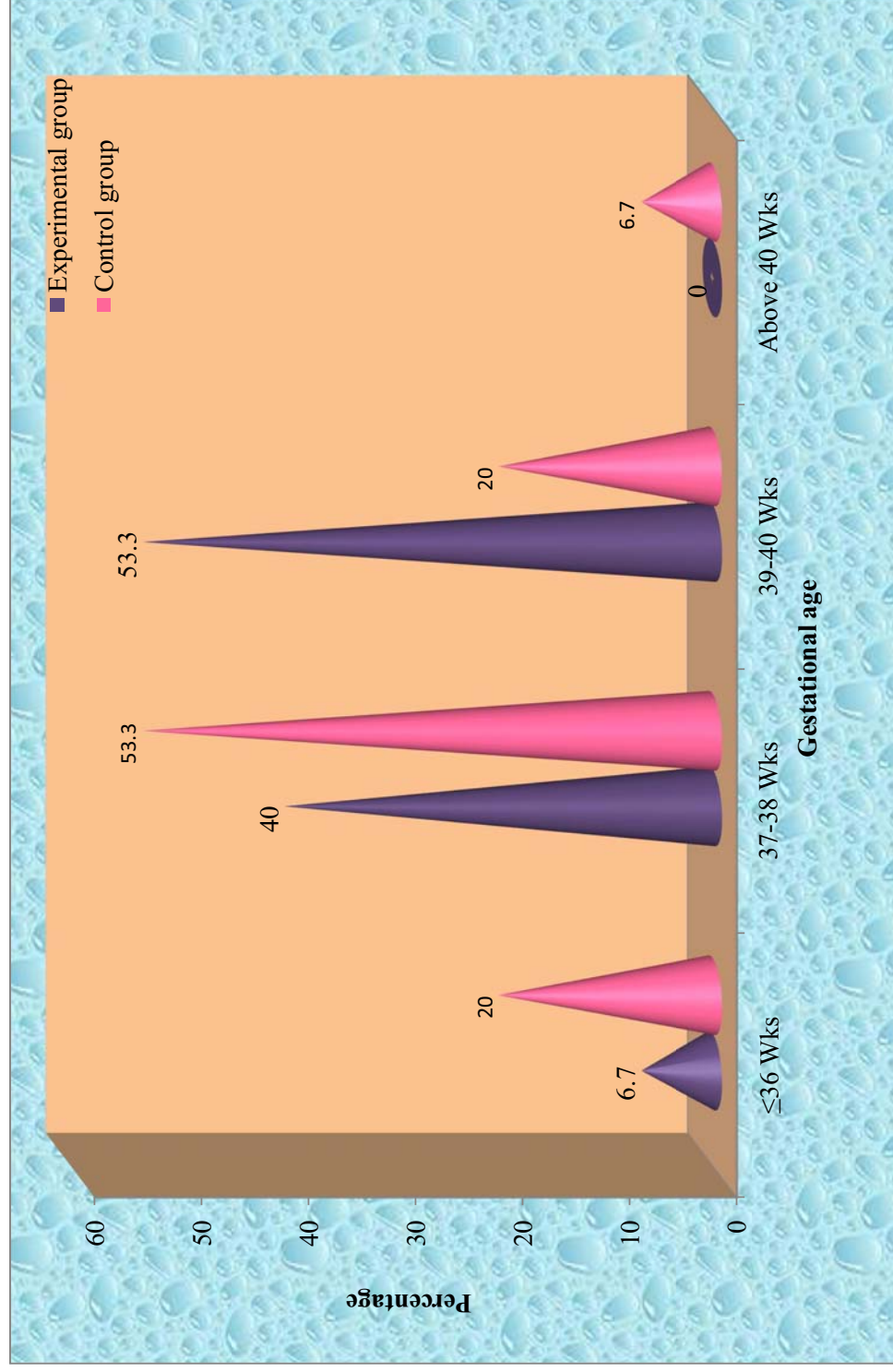
Considering their gestational age, 16(53.3%) primi mothers on experimental group had 39–40 wks and 16(53.3%) primi mothers were in 37–38 wks in control group.

Regarding birth weight of the newborn, 22 (73.3%) newborns were between 2.5-3.0 kg in experimental group and 18 (60.0%) were  $\leq 2.5$ kg in control group.

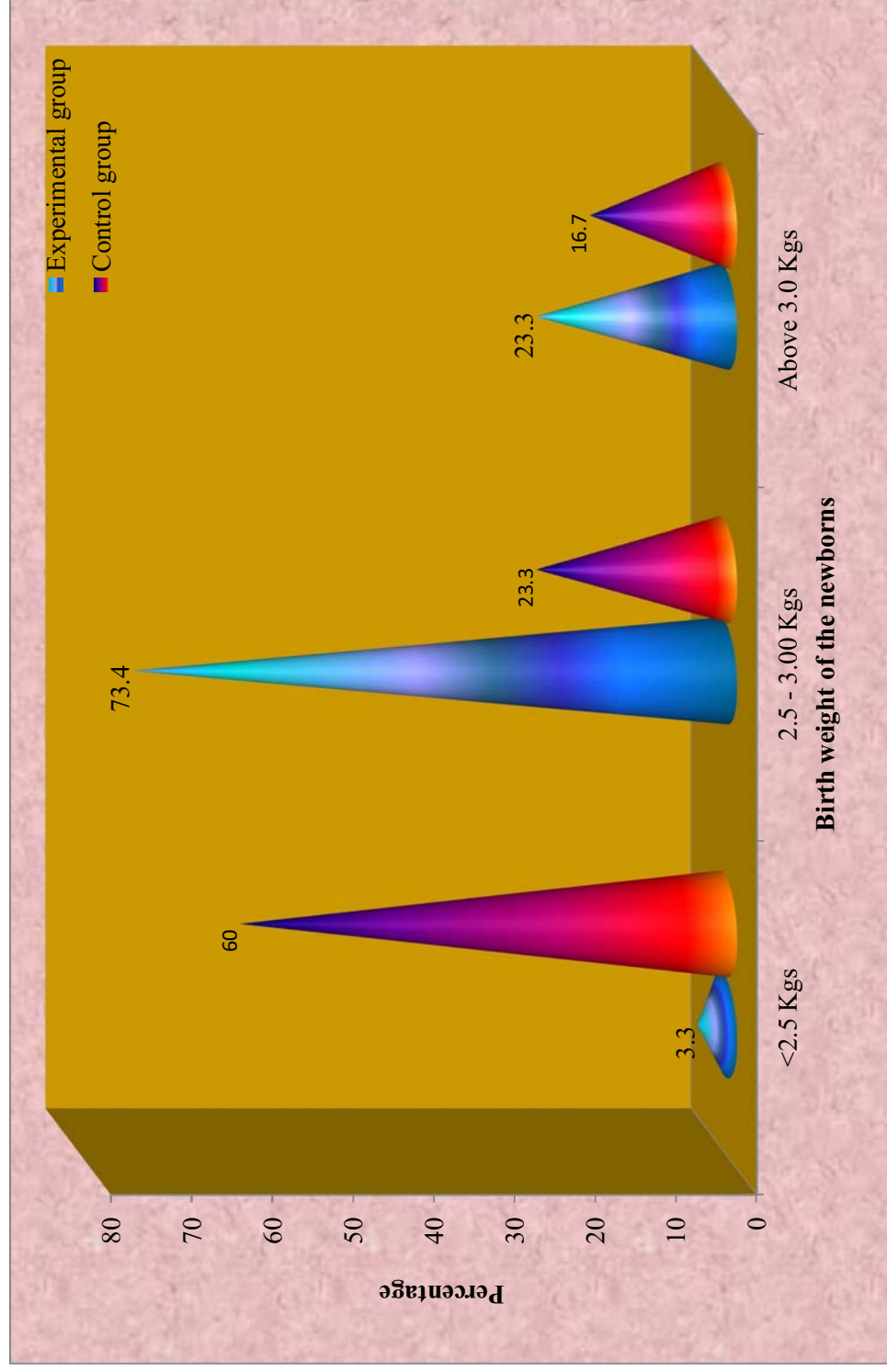
According to the type of family, 15 (50.0%) and 12 (40.0%) primi mothers were living in nuclear family in experimental and control group respectively.

The distribution of Apgar score of the newborn reveals that 26(86.7%) newborns had 7–10 in experimental group and each 15 (50.0%) had 4–6 and 7–10 in control group.

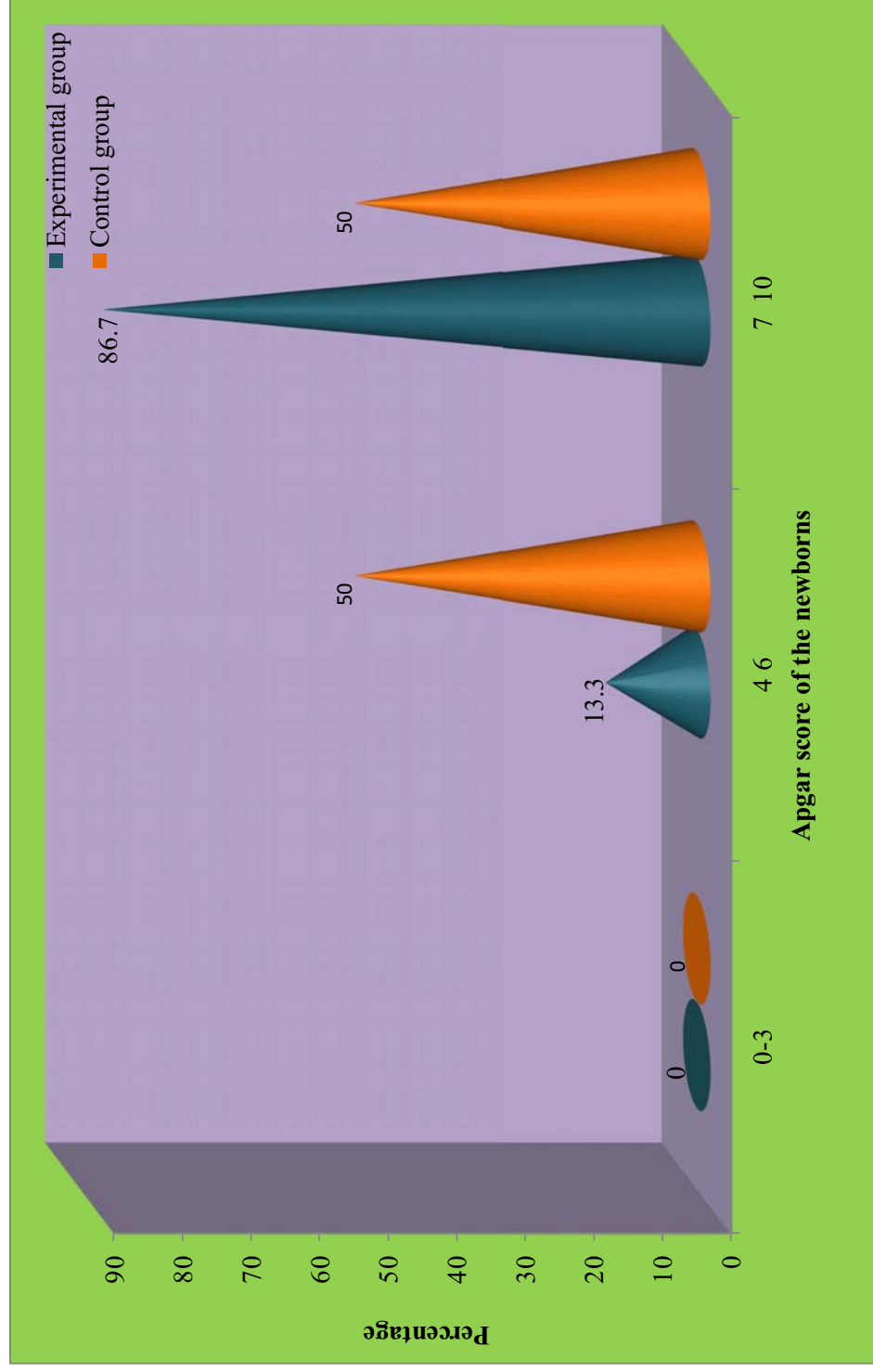




**Fig.13: Distribution of gestational age among experimental and control group**



**Fig.14: Distribution of birth weight of the newborns among experimental and control group**



**Fig.15: Distribution of Apgar score of the newborns among experimental and control group**

**TABLE – 4**

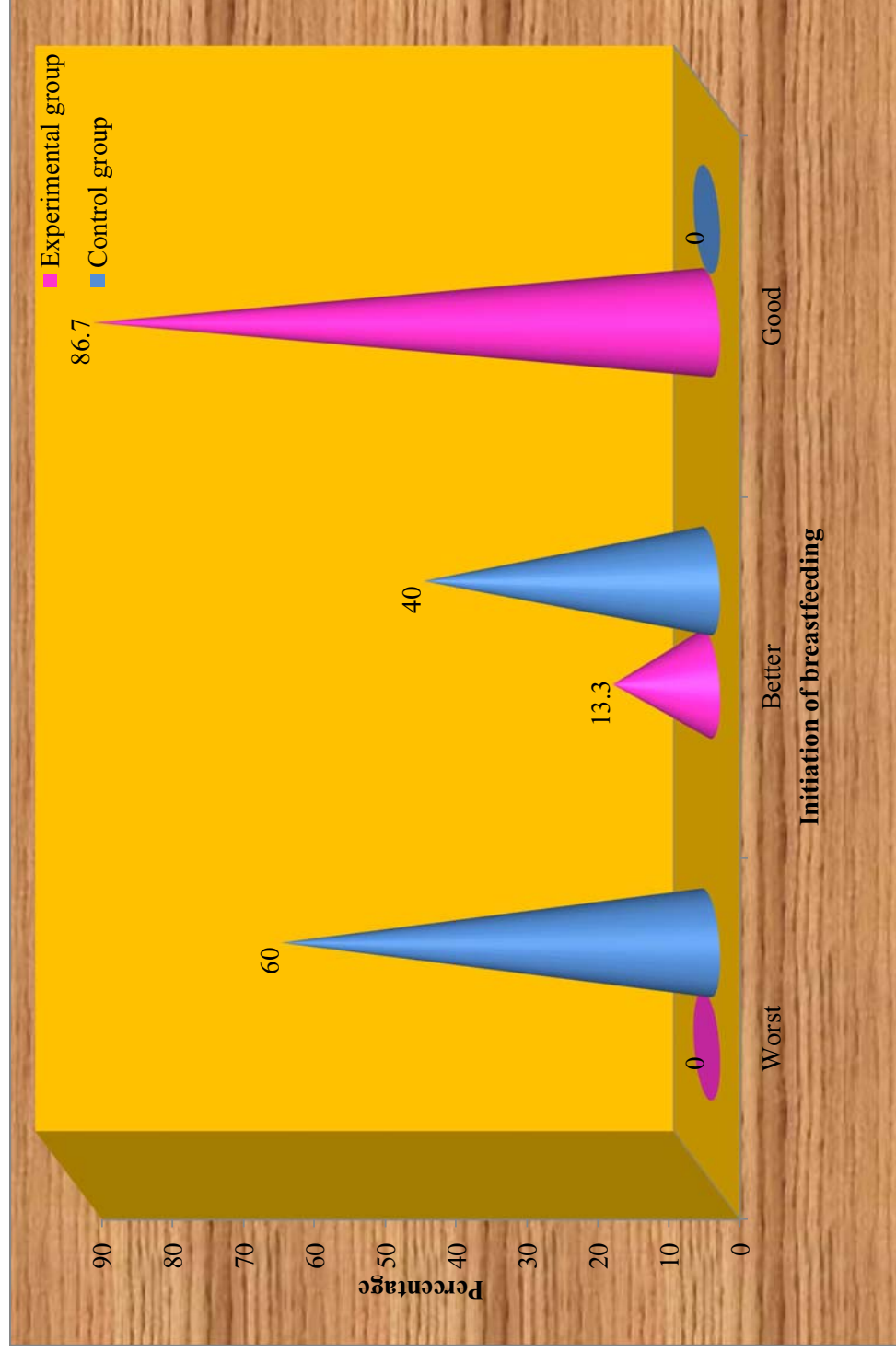
**DISTRIBUTION OF INITIATION OF BREASTFEEDING AND INTENSITY OF  
EPISIOTOMY SUTURING PAIN AMONG EXPERIMENTAL AND CONTROL  
GROUP**

**N=60**

| <b>S.No</b> | <b>Variables</b>                      | <b>Category</b> | <b>Groups</b>       |          |                |          |
|-------------|---------------------------------------|-----------------|---------------------|----------|----------------|----------|
|             |                                       |                 | <b>Experimental</b> |          | <b>Control</b> |          |
|             |                                       |                 | <b>No</b>           | <b>%</b> | <b>No</b>      | <b>%</b> |
| 1           | Initiation of breastfeeding           | Worst           | 0                   | 0.0      | 18             | 60.0     |
|             |                                       | Better          | 4                   | 13.3     | 12             | 40.0     |
|             |                                       | Good            | 26                  | 86.7     | 0              | 0.0      |
| 2           | Intensity of episiotomy suturing pain | Mild pain       | 25                  | 83.3     | 0              | 0.0      |
|             |                                       | Moderate pain   | 5                   | 16.7     | 8              | 26.7     |
|             |                                       | Severe pain     | 0                   | 0.0      | 22             | 73.3     |

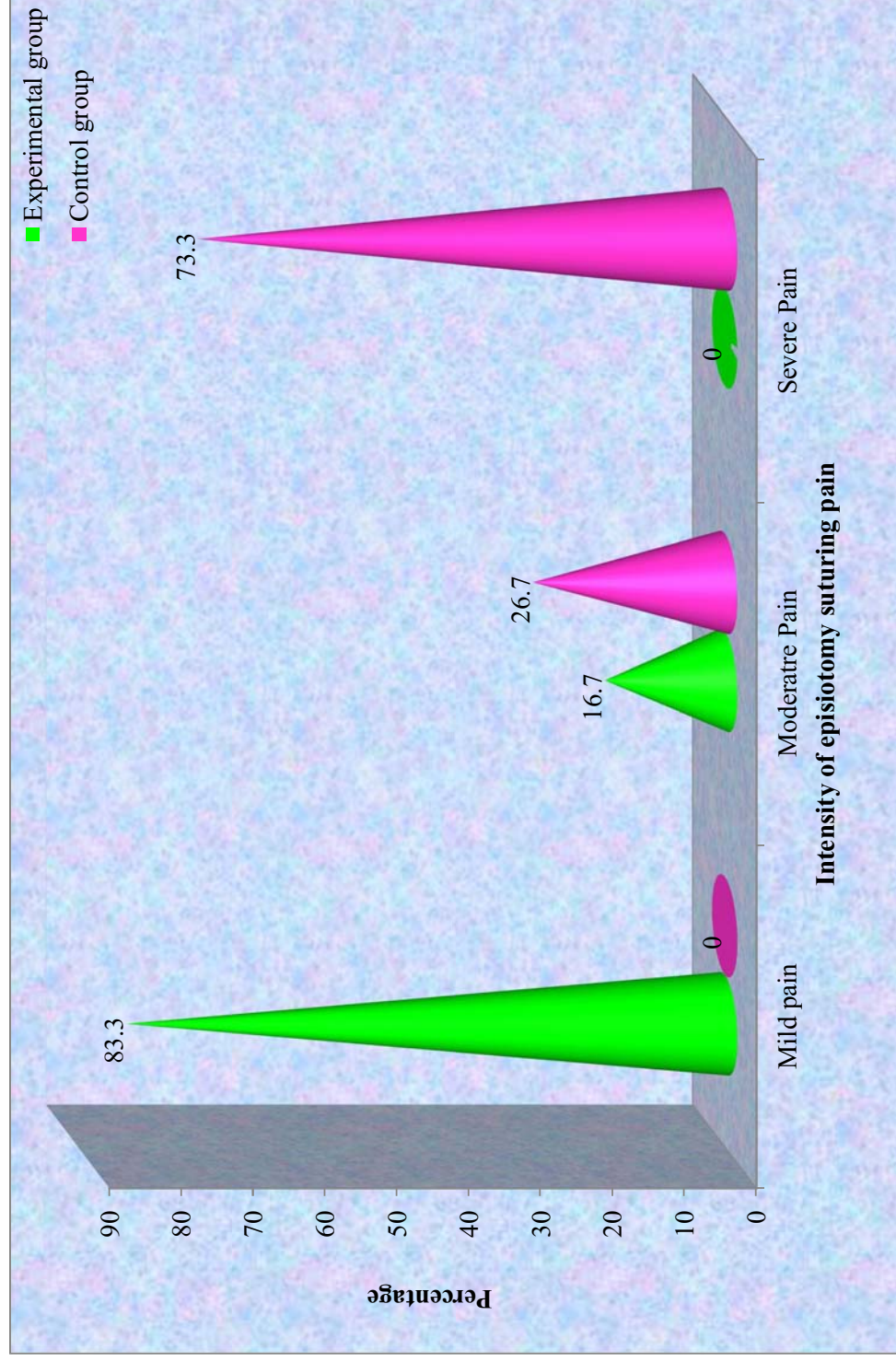
The above table unveils the distribution of initiation of breastfeeding and intensity of episiotomy suturing pain among experimental and control group. Out of 30 newborns, 26 (86.7%) had good ability to initiate the breastfeeding and 25 (83.3%) primi mothers perceived mild episiotomy suturing pain in experimental group.

Most of the 18 (60.0%) newborns had worst ability to initiate breastfeeding among control group. Among 30 primi mothers in control group 22 (73.3%) had severe episiotomy suturing pain.



**Fig.16: Distribution of initiation of breastfeeding among experimental and control group**





**Fig.17: Distribution of intensity of episiotomy suturing pain among experimental and control group**

## SECTION - B

**TABLE – 5**

**COMPARISON OF INITIATION OF BREASTFEEDING AND INTENSITY OF  
EPISIOTOMY SUTURING PAIN BETWEEN EXPERIMENTAL AND  
CONTROL GROUP**

**N=60**

| S.No | Variables                                   | Group        | Mean   | SD    | Independent<br>'t' value | 'p'<br>value |
|------|---|--------------|--------|-------|--------------------------|--------------|
| 1    | Initiation of<br>breastfeeding              | Experimental | 14.967 | 2.282 | 21.296***<br>(ss)        | 0.001        |
|      |   | Control      | 4.600  | 1.380 |                          |              |
| 2    | Intensity of<br>episiotomy<br>suturing pain | Experimental | 2.467  | 1.008 | 12.015***<br>(ss)        | 0.001        |
|      |   | Control      | 5.633  | 1.033 |                          |              |

\*\*\* Significant at  $p < (0.001)$

SS – Statistically significant

There was a statistically significant difference in the initiation of breastfeeding and intensity of episiotomy suturing pain between the experimental and control group at level  $p < 0.001$ .

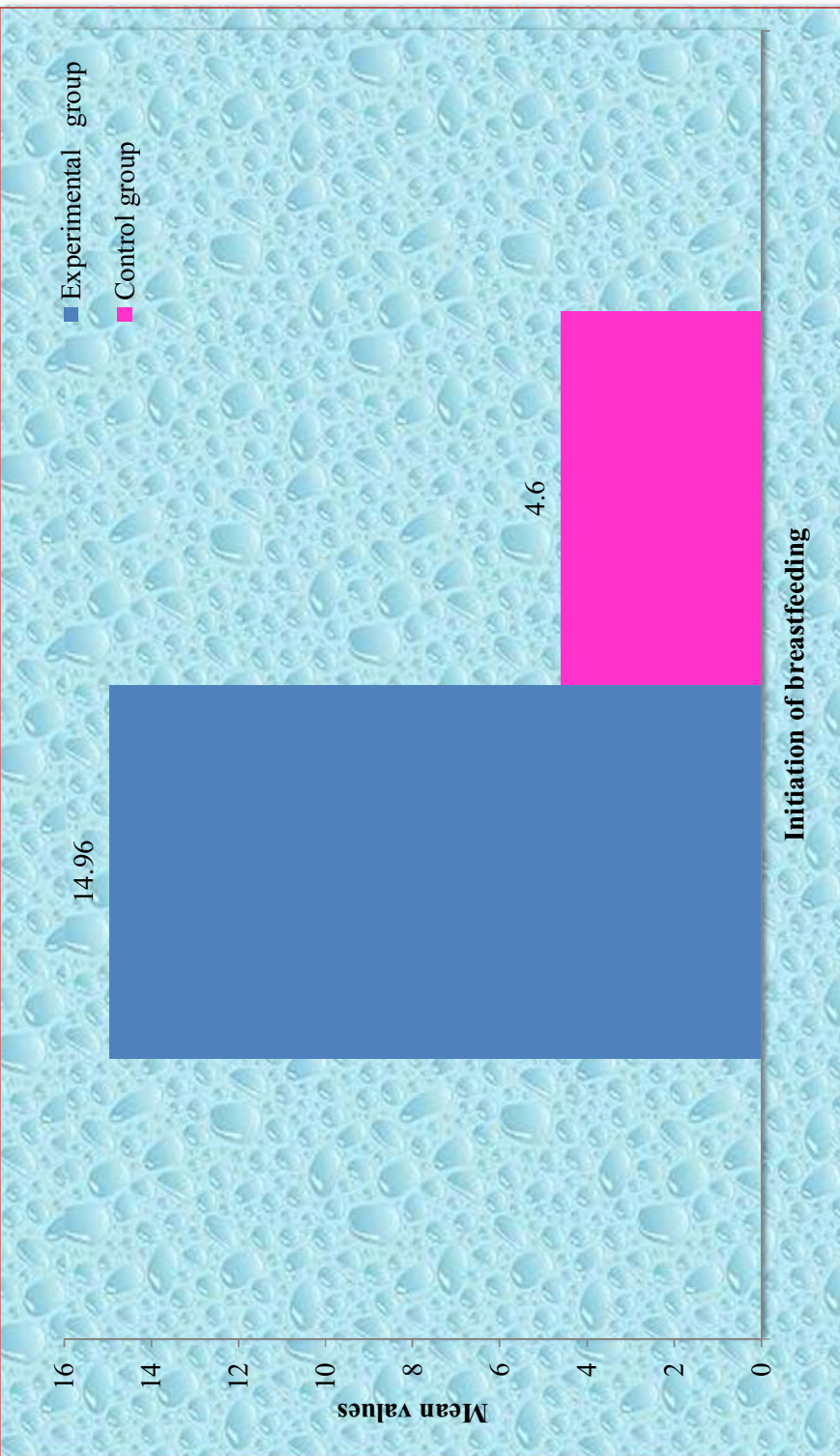
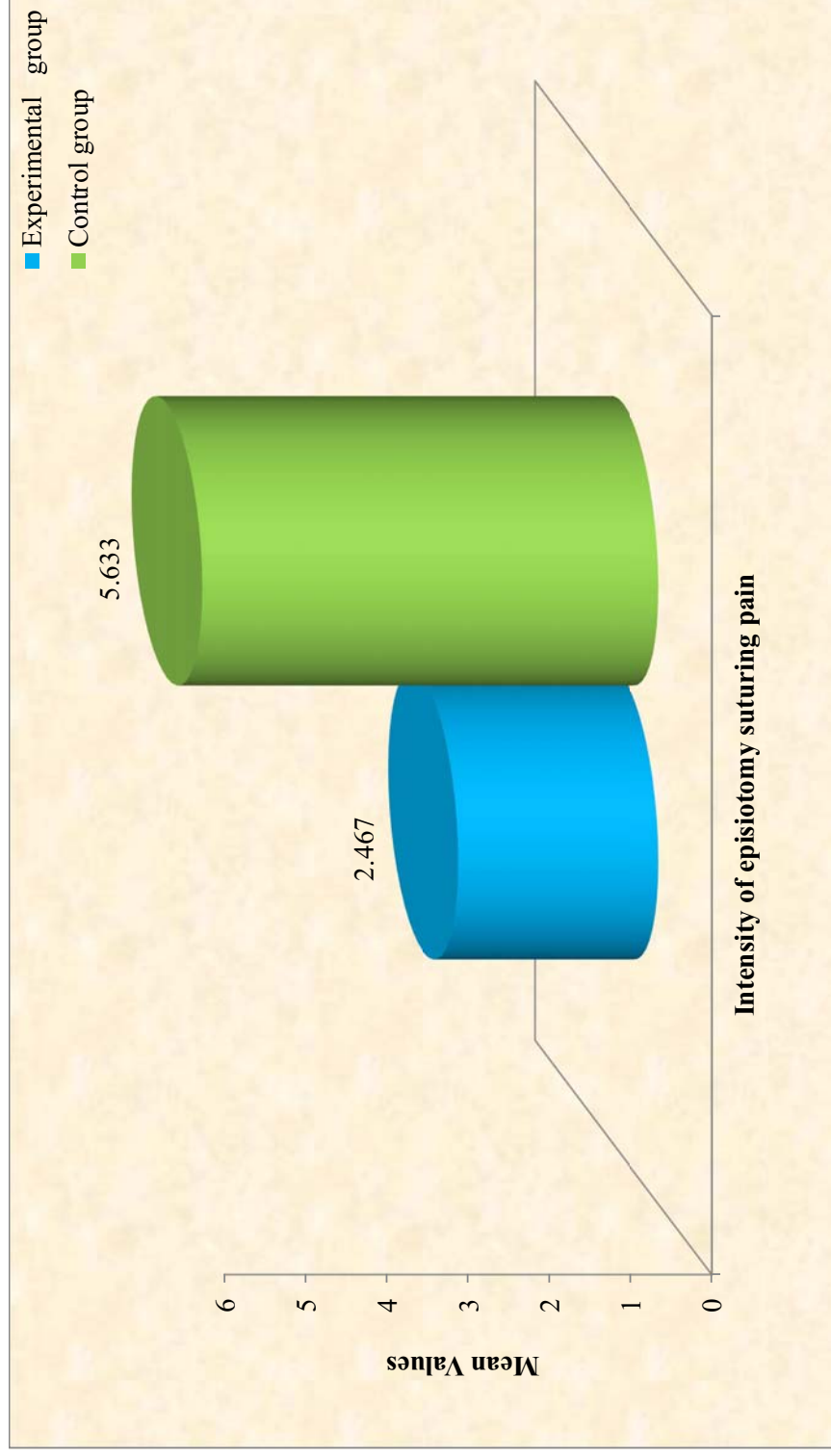


Fig. 18: Distribution of mean level of initiation of breastfeeding among experimental and control group





**Fig.19: Distribution of mean level of episiotomy suturing pain among experimental and control group**

## SECTION – C

**TABLE – 6**

**ASSOCIATION OF SELECTED DEMOGRAPHIC VARIABLES WITH  
INITIATION OF BREASTFEEDING AMONG EXPERIMENTAL GROUP**

**N=30**

| S.No | Demographic variables                |                        | Initiation of breastfeeding |     |        |      |      |      | Chi square | ‘p’ value  |
|------|--------------------------------------|------------------------|-----------------------------|-----|--------|------|------|------|------------|------------|
|      |                                      |                        | Worst                       |     | Better |      | Good |      |            |            |
|      |                                      |                        | No                          | %   | No     | %    | No   | %    |            |            |
| 1    | Age of the primi mothers             | 18 – 20 years          | 0                           | 0.0 | 0      | 0.0  | 2    | 6.7  | 0.367      | 0.832 (NS) |
|      |                                      | 21 – 25 years          | 0                           | 0.0 | 3      | 10.0 | 19   | 63.3 |            |            |
|      |                                      | 26 – 30 years          | 0                           | 0.0 | 1      | 3.3  | 5    | 16.7 |            |            |
| 2    | Educational status of primi mothers  | Literate               | 0                           | 0.0 | 0      | 0.0  | 11   | 36.7 | 4.409      | 0.221 (NS) |
|      |                                      | Primary education      | 0                           | 0.0 | 3      | 10.0 | 7    | 23.3 |            |            |
|      |                                      | Secondary education    | 0                           | 0.0 | 1      | 3.3  | 6    | 20.0 |            |            |
|      |                                      | Graduate and above     | 0                           | 0.0 | 0      | 0.0  | 2    | 6.7  |            |            |
| 3    | Occupational status of primi mothers | Home maker             | 0                           | 0.0 | 1      | 3.3  | 14   | 46.7 | 1.953      | 0.377 (NS) |
|      |                                      | Daily labour           | 0                           | 0.0 | 3      | 10.0 | 10   | 33.3 |            |            |
|      |                                      | Professional           | 0                           | 0.0 | 0      | 0.0  | 0    | 0.0  |            |            |
|      |                                      | Business               | 0                           | 0.0 | 0      | 0.0  | 2    | 6.7  |            |            |
| 4    | Family income/ month (Rs)            | Below Rs 5,000         | 0                           | 0.0 | 2      | 6.7  | 9    | 30.0 | 3.477      | 0.324 (NS) |
|      |                                      | Rs 5,001 to Rs 10,000  | 0                           | 0.0 | 2      | 6.7  | 5    | 16.6 |            |            |
|      |                                      | Rs 10,001 to Rs 15,000 | 0                           | 0.0 | 0      | 0.0  | 9    | 30.0 |            |            |
|      |                                      | Above Rs 15,000        | 0                           | 0.0 | 0      | 0.0  | 3    | 10.0 |            |            |
| 5    | Type of family                       | Nuclear                | 0                           | 0.0 | 2      | 6.7  | 13   | 43.3 | 1.538      | 0.463 (NS) |
|      |                                      | Joint                  | 0                           | 0.0 | 2      | 6.7  | 7    | 23.3 |            |            |
|      |                                      | Extended               | 0                           | 0.0 | 0      | 0.0  | 6    | 20.0 |            |            |
| 6    | Diet pattern of the primi mother’s   | Vegetarian             | 0                           | 0.0 | 0      | 0.0  | 5    | 16.7 | 2.308      | 0.315 (NS) |
|      |                                      | Non–vegetarian         | 0                           | 0.0 | 0      | 0.0  | 5    | 16.7 |            |            |
|      |                                      | Mixed diet             | 0                           | 0.0 | 4      | 13.3 | 16   | 53.3 |            |            |

**NS-** Not significant

The table 6 shows that there was no association of selected demographic variables with initiation of breastfeeding among experimental group.

**TABLE-7**

**ASSOCIATION OF SELECTED OBSTETRICAL VARIABLES WITH  
INITIATION OF BREASTFEEDING AMONG EXPERIMENTAL GROUP**

**N=30**

| S.No | Obstetrical variables       |               | Initiation of breastfeeding |     |        |      |      |      | Chi square | ‘p’ value  |
|------|-----------------------------|---------------|-----------------------------|-----|--------|------|------|------|------------|------------|
|      |                             |               | Worst                       |     | Better |      | Good |      |            |            |
|      |                             |               | No                          | %   | No     | %    | No   | %    |            |            |
| 1    | Age at menarche             | 10 – 11 years | 0                           | 0.0 | 1      | 3.3  | 2    | 6.7  | 1.173      | 0.556 (NS) |
|      |                             | 12 – 13 years | 0                           | 0.0 | 2      | 6.7  | 17   | 56.7 |            |            |
|      |                             | 14 – 15 years | 0                           | 0.0 | 1      | 3.3  | 7    | 23.3 |            |            |
|      |                             | 16 – 17 years | 0                           | 0.0 | 0      | 0.0  | 0    | 0.0  |            |            |
| 2    | Age at marriage             | ≤ 18 years    | 0                           | 0.0 | 0      | 0.0  | 2    | 6.7  | 7.500*     | 0.058 (SS) |
|      |                             | 19 – 22 years | 0                           | 0.0 | 2      | 6.7  | 8    | 26.6 |            |            |
|      |                             | 23 – 26 years | 0                           | 0.0 | 0      | 0.0  | 14   | 46.6 |            |            |
|      |                             | 27 – 30 years | 0                           | 0.0 | 2      | 6.7  | 2    | 6.7  |            |            |
| 3    | Gestational age             | ≤ 36 wks      | 0                           | 0.0 | 1      | 3.3  | 1    | 3.3  | 3.137      | 0.208 (NS) |
|      |                             | 37 – 38 wks   | 0                           | 0.0 | 2      | 6.7  | 10   | 33.3 |            |            |
|      |                             | 39 – 40 wks   | 0                           | 0.0 | 1      | 3.3  | 15   | 50.0 |            |            |
|      |                             | Above 40 wks  | 0                           | 0.0 | 0      | 0.0  | 0    | 0.0  |            |            |
| 4    | Birth weight of the newborn | <2.5 kg       | 0                           | 0.0 | 1      | 3.3  | 0    | 0.0  | 7.579*     | 0.023 (SS) |
|      |                             | 2.5 – 3.0 kg  | 0                           | 0.0 | 3      | 10.0 | 19   | 63.3 |            |            |
|      |                             | Above 3.0 kg  | 0                           | 0.0 | 0      | 0.0  | 7    | 23.3 |            |            |
| 5    | Apgar score of the newborn  | 0 – 3         | 0                           | 0.0 | 0      | 0.0  | 0    | 0.0  | 15.189***  | 0.001 (SS) |
|      |                             | 4 – 6         | 0                           | 0.0 | 3      | 10.0 | 1    | 3.3  |            |            |
|      |                             | 7 – 10        | 0                           | 0.0 | 1      | 3.3  | 25   | 83.3 |            |            |

**Key:** \*p<0.05, \*\*\* p<0.001

SS–Statistically significant, NS–Not significant

The table 7 shows that there was a statistically significant association of age at marriage, birth weight of the newborn in post test among experimental group at level p<0.05 and Apgar score of the newborn at level p<0.001.

**TABLE-8**

**ASSOCIATION OF SELECTED DEMOGRAPHIC VARIABLES WITH  
INITIATION OF BREASTFEEDING AMONG CONTROL GROUP**

**N=30**

| S.No | Demographic variables                |                        | Initiation of breastfeeding |      |        |      |      |     | Chi square | ‘p’ value  |
|------|--------------------------------------|------------------------|-----------------------------|------|--------|------|------|-----|------------|------------|
|      |                                      |                        | Worst                       |      | Better |      | Good |     |            |            |
|      |                                      |                        | No                          | %    | No     | %    | No   | %   |            |            |
| 1    | Age of the primi mothers             | 18 – 20 years          | 0                           | 0.0  | 4      | 13.3 | 0    | 0.0 | 7.188      | 0.066 (NS) |
|      |                                      | 21 – 25 years          | 3                           | 10.0 | 5      | 16.7 | 0    | 0.0 |            |            |
|      |                                      | 26 – 30 years          | 9                           | 30.0 | 9      | 30.0 | 0    | 0.0 |            |            |
| 2    | Educational status of primi mothers  | Literate               | 7                           | 23.3 | 5      | 16.7 | 0    | 0.0 | 3.562      | 0.313 (NS) |
|      |                                      | Primary education      | 3                           | 10.0 | 6      | 20.0 | 0    | 0.0 |            |            |
|      |                                      | Secondary education    | 2                           | 6.7  | 5      | 16.7 | 0    | 0.0 |            |            |
|      |                                      | Graduate               | 0                           | 0.0  | 2      | 6.7  | 0    | 0.0 |            |            |
| 3    | Occupational status of primi mothers | Home maker             | 7                           | 23.3 | 7      | 23.3 | 0    | 0.0 | 1.131      | 0.568 (NS) |
|      |                                      | Daily labour           | 3                           | 10.0 | 6      | 20.0 | 0    | 0.0 |            |            |
|      |                                      | Professional           | 0                           | 0.0  | 0      | 0.0  | 0    | 0.0 |            |            |
|      |                                      | Business               | 2                           | 6.7  | 5      | 16.7 | 0    | 0.0 |            |            |
| 4    | Family income/ month (Rs)            | Below Rs 5,000         | 6                           | 20.0 | 6      | 20.0 | 0    | 0.0 | 2.545      | 0.467 (NS) |
|      |                                      | Rs 5,001to Rs 10,000   | 3                           | 10.0 | 4      | 13.3 | 0    | 0.0 |            |            |
|      |                                      | Rs 10,001 to Rs 15,000 | 3                           | 10.0 | 5      | 16.7 | 0    | 0.0 |            |            |
|      |                                      | Above Rs 15,000        | 0                           | 0.0  | 3      | 10.0 | 0    | 0.0 |            |            |
| 5    | Type of family                       | Nuclear                | 5                           | 16.7 | 7      | 23.3 | 0    | 0.0 | 0.139      | 0.933 (NS) |
|      |                                      | Joint                  | 2                           | 6.7  | 4      | 13.3 | 0    | 0.0 |            |            |
|      |                                      | Extended               | 5                           | 16.7 | 7      | 23.3 | 0    | 0.0 |            |            |
| 6    | Diet pattern of the primi mother’s   | Vegetarian             | 5                           | 16.7 | 9      | 30.0 | 0    | 0.0 | 0.288      | 0.866 (NS) |
|      |                                      | Non–vegetarian         | 2                           | 6.7  | 2      | 6.7  | 0    | 0.0 |            |            |
|      |                                      | Mixed diet             | 5                           | 16.7 | 7      | 23.3 | 0    | 0.0 |            |            |

**NS-** Not significant

The table 8 shows that there was no association of selected demographic variables with initiation of breastfeeding among control group.

**TABLE-9**

**ASSOCIATION OF SELECTED OBSTETRICAL VARIABLES WITH  
INITIATION OF BREASTFEEDING AMONG CONTROL GROUP**

**N=30**

| S. No | Obstetrical variables       |               | Initiation of breastfeeding |      |        |      |      |     | Chi square | ‘p’ value  |
|-------|-----------------------------|---------------|-----------------------------|------|--------|------|------|-----|------------|------------|
|       |                             |               | Worst                       |      | Better |      | Good |     |            |            |
|       |                             |               | No                          | %    | No     | %    | No   | %   |            |            |
| 1     | Age at menarche             | 10 – 11 years | 3                           | 10.0 | 8      | 26.7 | 0    | 0.0 | 1.729      | 0.63 (NS)  |
|       |                             | 12 – 13 years | 4                           | 13.3 | 5      | 16.7 | 0    | 0.0 |            |            |
|       |                             | 14 – 15 years | 4                           | 13.3 | 3      | 10.0 | 0    | 0.0 |            |            |
|       |                             | 16 – 17 years | 1                           | 3.3  | 2      | 6.7  | 0    | 0.0 |            |            |
| 2     | Age at marriage             | ≤ 18 years    | 5                           | 16.7 | 3      | 10.0 | 0    | 0.0 | 2.961      | 0.398 (NS) |
|       |                             | 19 – 22 years | 1                           | 3.3  | 4      | 13.3 | 0    | 0.0 |            |            |
|       |                             | 23 – 26 years | 3                           | 10.0 | 7      | 23.3 | 0    | 0.0 |            |            |
|       |                             | 27 – 30 years | 3                           | 10.0 | 4      | 13.3 | 0    | 0.0 |            |            |
| 3     | Gestational age             | ≤ 36 wks      | 4                           | 13.3 | 2      | 6.7  | 0    | 0.0 | 10.816*    | 0.013 (SS) |
|       |                             | 37 – 38 wks   | 3                           | 10.0 | 13     | 43.3 | 0    | 0.0 |            |            |
|       |                             | 39 – 40 wks   | 5                           | 16.7 | 1      | 3.3  | 0    | 0.0 |            |            |
|       |                             | Above 40 wks  | 0                           | 0.0  | 2      | 6.7  | 0    | 0.0 |            |            |
| 4     | Birth weight of the newborn | <2.5 kg       | 9                           | 30.0 | 9      | 30.0 | 0    | 0.0 | 2.679      | 0.262 (NS) |
|       |                             | 2.5 – 3.0 kg  | 1                           | 3.3  | 6      | 20.0 | 0    | 0.0 |            |            |
|       |                             | Above 3.0 kg  | 2                           | 6.7  | 3      | 10.0 | 0    | 0.0 |            |            |
| 5     | Apgar score of the newborn  | 0 – 3         | 0                           | 0.0  | 0      | 0.0  | 0    | 0.0 | 5.000*     | 0.025 (SS) |
|       |                             | 4 – 6         | 3                           | 10.0 | 12     | 40.0 | 0    | 0.0 |            |            |
|       |                             | 7 – 10        | 9                           | 30.0 | 6      | 20.0 | 0    | 0.0 |            |            |

**Key:** \*p<0.05, \*\* p<0.01

SS – Statistically significant, NS- Not significant

The table 9 shows that there was a statistically significant association of gestational age and Apgar score of the newborn in post test among control group at level p<0.01 and p<0.05 respectively.

**TABLE – 10**

**ASSOCIATION OF SELECTED DEMOGRAPHIC VARIABLES WITH  
INTENSITY OF EPISIOTOMY SUTURING PAIN AMONG EXPERIMENTAL  
GROUP**

**N=30**

| S.No | Demographic variables                |                        | Intensity of episiotomy suturing pain |      |          |      |        |     | Chi square | ‘p’ value  |
|------|--------------------------------------|------------------------|---------------------------------------|------|----------|------|--------|-----|------------|------------|
|      |                                      |                        | Mild                                  |      | Moderate |      | Severe |     |            |            |
|      |                                      |                        | No                                    | %    | No       | %    | No     | %   |            |            |
| 1    | Age of the primi mothers             | 18 – 20 years          | 2                                     | 6.7  | 0        | 0.0  | 0      | 0.0 | 0.436      | 0.804 (NS) |
|      |                                      | 21 – 25 years          | 18                                    | 60.0 | 4        | 13.3 | 0      | 0.0 |            |            |
|      |                                      | 26 – 30 years          | 5                                     | 16.7 | 1        | 3.3  | 0      | 0.0 |            |            |
| 2    | Educational status of primi mothers  | Literate               | 9                                     | 30.0 | 2        | 6.7  | 0      | 0.0 | 0.527      | 0.913 (NS) |
|      |                                      | Primary education      | 8                                     | 26.7 | 2        | 6.7  | 0      | 0.0 |            |            |
|      |                                      | Secondary education    | 6                                     | 20.0 | 1        | 3.3  | 0      | 0.0 |            |            |
|      |                                      | Graduate               | 2                                     | 6.7  | 0        | 0.0  | 0      | 0.0 |            |            |
| 3    | Occupational status of primi mothers | Home maker             | 14                                    | 46.7 | 1        | 3.3  | 0      | 0.0 | 3.065      | 0.216 (NS) |
|      |                                      | Daily labour           | 10                                    | 33.3 | 3        | 10.0 | 0      | 0.0 |            |            |
|      |                                      | Professional           | 0                                     | 0.0  | 0        | 0.0  | 0      | 0.0 |            |            |
|      |                                      | Business               | 1                                     | 3.3  | 1        | 3.3  | 0      | 0.0 |            |            |
| 4    | Family income/ month (Rs)            | Below Rs 5,000         | 9                                     | 30.0 | 2        | 6.7  | 0      | 0.0 | 1.532      | 0.675 (NS) |
|      |                                      | Rs 5,001 to Rs 10,000  | 5                                     | 16.7 | 2        | 6.7  | 0      | 0.0 |            |            |
|      |                                      | Rs 10,001 to Rs 15,000 | 8                                     | 26.7 | 1        | 3.3  | 0      | 0.0 |            |            |
|      |                                      | Above Rs 15,000        | 3                                     | 10.0 | 0        | 0.0  | 0      | 0.0 |            |            |
| 5    | Type of family                       | Nuclear                | 13                                    | 43.3 | 2        | 6.7  | 0      | 0.0 | 0.32       | 0.852 (NS) |
|      |                                      | Joint                  | 7                                     | 23.3 | 2        | 6.7  | 0      | 0.0 |            |            |
|      |                                      | Extended               | 5                                     | 16.7 | 1        | 3.3  | 0      | 0.0 |            |            |
| 6    | Diet pattern of the primi mother’s   | Vegetarian             | 4                                     | 13.3 | 1        | 3.3  | 0      | 0.0 | 1.2        | 0.549 (NS) |
|      |                                      | Non–vegetarian         | 5                                     | 16.7 | 0        | 0.0  | 0      | 0.0 |            |            |
|      |                                      | Mixed diet             | 16                                    | 53.3 | 4        | 13.3 | 0      | 0.0 |            |            |

**NS-** Not significant

There was no association of selected demographic variables with initiation of breastfeeding among experimental group.

**TABLE – 11**

**ASSOCIATION OF SELECTED OBSTETRICAL VARIABLES WITH  
INTENSITY OF EPISIOTOMY SUTURING PAIN AMONG EXPERIMENTAL  
GROUP**

**N=30**

| S.No | Obstetrical variables       |               | Intensity of episiotomy suturing pain |      |          |      |        |     | Chi square | ‘p’ value  |
|------|-----------------------------|---------------|---------------------------------------|------|----------|------|--------|-----|------------|------------|
|      |                             |               | Mild                                  |      | Moderate |      | Severe |     |            |            |
|      |                             |               | No                                    | %    | No       | %    | No     | %   |            |            |
| 1    | Age at menarche             | 10 – 11 years | 3                                     | 10.0 | 0        | 0.0  | 0      | 0.0 | 0.963      | 0.618 (NS) |
|      |                             | 12 – 13 years | 15                                    | 50.0 | 4        | 13.3 | 0      | 0.0 |            |            |
|      |                             | 14 – 15 years | 7                                     | 23.3 | 1        | 3.3  | 0      | 0.0 |            |            |
|      |                             | 16 – 17 years | 0                                     | 0.0  | 0        | 0.0  | 0      | 0.0 |            |            |
| 2    | Age at marriage             | ≤ 18 years    | 2                                     | 6.7  | 0        | 0.0  | 0      | 0.0 | 0.737      | 0.864 (NS) |
|      |                             | 19 – 22 years | 8                                     | 26.7 | 2        | 6.7  | 0      | 0.0 |            |            |
|      |                             | 23 – 26 years | 12                                    | 40.0 | 2        | 6.7  | 0      | 0.0 |            |            |
|      |                             | 27 – 30 years | 3                                     | 10.0 | 1        | 3.3  | 0      | 0.0 |            |            |
| 3    | Gestational age             | ≤ 36 wks      | 2                                     | 6.7  | 0        | 0.0  | 0      | 0.0 | 0.45       | 0.799 (NS) |
|      |                             | 37 – 38 wks   | 10                                    | 33.3 | 2        | 6.7  | 0      | 0.0 |            |            |
|      |                             | 39 – 40 wks   | 13                                    | 43.3 | 3        | 10.0 | 0      | 0.0 |            |            |
|      |                             | Above 40 wks  | 0                                     | 0.0  | 0        | 0.0  | 0      | 0.0 |            |            |
| 4    | Birth weight of the newborn | <2.5 kg       | 1                                     | 3.3  | 0        | 0.0  | 0      | 0.0 | 0.265      | 0.876 (NS) |
|      |                             | 2.5 – 3.0 kg  | 18                                    | 60.0 | 4        | 13.3 | 0      | 0.0 |            |            |
|      |                             | Above 3.0 kg  | 6                                     | 20.0 | 1        | 3.3  | 0      | 0.0 |            |            |
| 5    | Apgar score of the newborn  | 0–3           | 0                                     | 0.0  | 0        | 0.0  | 0      | 0.0 | 0.231      | 0.631 (NS) |
|      |                             | 4–6           | 3                                     | 10.0 | 1        | 3.3  | 0      | 0.0 |            |            |
|      |                             | 7–10          | 22                                    | 73.3 | 4        | 13.3 | 0      | 0.0 |            |            |

**NS-** Not significant

The above table unfolds that there was no association of selected obstetrical variables with intensity of episiotomy suturing pain in post test among experimental group.

**TABLE – 12**

**ASSOCIATION OF SELECTED DEMOGRAPHIC VARIABLES WITH  
INTENSITY OF EPISIOTOMY SUTURING PAIN AMONG CONTROL GROUP**

**N=30**

| S.No | Demographic variables                |                        | Intensity of episiotomy suturing pain |     |          |      |        |      | Chi square | ‘p’ value  |
|------|--------------------------------------|------------------------|---------------------------------------|-----|----------|------|--------|------|------------|------------|
|      |                                      |                        | Mild                                  |     | Moderate |      | Severe |      |            |            |
|      |                                      |                        | No                                    | %   | No       | %    | No     | %    |            |            |
| 1    | Age of the primi mothers             | 18 – 20 years          | 0                                     | 0.0 | 4        | 13.3 | 0      | 0.0  | 10.909**   | 0.012 (SS) |
|      |                                      | 21 – 25 years          | 0                                     | 0.0 | 8        | 26.7 | 0      | 0.0  |            |            |
|      |                                      | 26 – 30 years          | 0                                     | 0.0 | 10       | 33.3 | 8      | 26.7 |            |            |
| 2    | Educational status of primi mothers  | Literate               | 0                                     | 0.0 | 8        | 26.7 | 4      | 13.3 | 9.058*     | 0.029 (SS) |
|      |                                      | Primary education      | 0                                     | 0.0 | 9        | 30.0 | 0      | 0.0  |            |            |
|      |                                      | Secondary education    | 0                                     | 0.0 | 5        | 16.7 | 2      | 6.7  |            |            |
|      |                                      | Graduate               | 0                                     | 0.0 | 0        | 0.0  | 2      | 6.7  |            |            |
| 3    | Occupational status of primi mothers | Home maker             | 0                                     | 0.0 | 8        | 26.7 | 6      | 20.0 | 5.162      | 0.076 (NS) |
|      |                                      | Daily labour           | 0                                     | 0.0 | 9        | 30.0 | 0      | 0.0  |            |            |
|      |                                      | Professional           | 0                                     | 0.0 | 0        | 0.0  | 0      | 0.0  |            |            |
|      |                                      | Business               | 0                                     | 0.0 | 5        | 16.7 | 2      | 6.7  |            |            |
| 4    | Family income/ month (Rs)            | Below Rs 5,000         | 0                                     | 0.0 | 8        | 26.7 | 4      | 13.3 | 3.123      | 0.373 (NS) |
|      |                                      | Rs 5,001 to Rs 10,000  | 0                                     | 0.0 | 4        | 13.3 | 3      | 10.0 |            |            |
|      |                                      | Rs 10,001 to Rs 15,000 | 0                                     | 0.0 | 7        | 23.3 | 1      | 3.3  |            |            |
|      |                                      | Above Rs 15,000        | 0                                     | 0.0 | 3        | 10.0 | 0      | 0.0  |            |            |
| 5    | Type of family                       | Nuclear                | 0                                     | 0.0 | 7        | 23.3 | 5      | 16.7 | 3.58       | 0.167 (NS) |
|      |                                      | Joint                  | 0                                     | 0.0 | 6        | 20.0 | 0      | 0.0  |            |            |
|      |                                      | Extended               | 0                                     | 0.0 | 9        | 30.0 | 3      | 10.0 |            |            |
| 6    | Diet pattern of the primi mother’s   | Vegetarian             | 0                                     | 0.0 | 9        | 30.0 | 5      | 16.7 | 2.058      | 0.357 (NS) |
|      |                                      | Non–vegetarian         | 0                                     | 0.0 | 4        | 13.3 | 0      | 0.0  |            |            |
|      |                                      | Mixed diet             | 0                                     | 0.0 | 9        | 30.0 | 3      | 10.0 |            |            |

**Key:** \*p<0.05, \*\* p<0.01

SS–Statistically significant, NS–Not significant

The table 12 shows that there was a statistically significant association of age of the primi mothers and educational status of primi mothers in post test among control group at level p<0.01 and p<0.05 respectively.



**TABLE – 13**

**ASSOCIATION OF SELECTED OBSTETRICAL VARIABLES WITH  
INTENSITY OF EPISIOTOMY SUTURING PAIN AMONG CONTROL GROUP**

**N=30**

| S.No | Obstetrical variables       |               | Intensity of episiotomy suturing pain |     |          |      |        |      | Chi square | ‘p’ value  |
|------|-----------------------------|---------------|---------------------------------------|-----|----------|------|--------|------|------------|------------|
|      |                             |               | Mild                                  |     | Moderate |      | Severe |      |            |            |
|      |                             |               | No                                    | %   | No       | %    | No     | %    |            |            |
| 1    | Age at menarche             | 10 – 11 years | 0                                     | 0.0 | 7        | 23.3 | 4      | 13.3 | 1.724      | 0.632 (NS) |
|      |                             | 12 – 13 years | 0                                     | 0.0 | 8        | 26.7 | 1      | 3.3  |            |            |
|      |                             | 14 – 15 years | 0                                     | 0.0 | 5        | 16.7 | 2      | 6.7  |            |            |
|      |                             | 16 – 17 years | 0                                     | 0.0 | 2        | 6.7  | 1      | 3.3  |            |            |
| 2    | Age at marriage             | ≤ 18 years    | 0                                     | 0.0 | 6        | 20.0 | 2      | 6.7  | 1.071      | 0.784 (NS) |
|      |                             | 19 – 22 years | 0                                     | 0.0 | 3        | 10.0 | 2      | 6.7  |            |            |
|      |                             | 23 – 26 years | 0                                     | 0.0 | 7        | 23.3 | 3      | 10.0 |            |            |
|      |                             | 27 – 30 years | 0                                     | 0.0 | 6        | 20.0 | 1      | 3.3  |            |            |
| 3    | Gestational age             | ≤ 36 wks      | 0                                     | 0.0 | 5        | 16.7 | 1      | 3.3  | 1.342      | 0.719 (NS) |
|      |                             | 37 – 38 wks   | 0                                     | 0.0 | 11       | 36.7 | 5      | 16.7 |            |            |
|      |                             | 39 – 40 wks   | 0                                     | 0.0 | 5        | 16.7 | 1      | 3.3  |            |            |
|      |                             | Above 40 wks  | 0                                     | 0.0 | 1        | 3.3  | 1      | 3.3  |            |            |
| 4    | Birth weight of the newborn | <2.5 kg       | 0                                     | 0.0 | 12       | 40.0 | 6      | 20.0 | 1.071      | 0.585 (NS) |
|      |                             | 2.5 – 3.0 kg  | 0                                     | 0.0 | 6        | 20.0 | 1      | 3.3  |            |            |
|      |                             | Above 3.0 kg  | 0                                     | 0.0 | 4        | 13.3 | 1      | 3.3  |            |            |
| 5    | Apgar score of the newborn  | 0–3           | 0                                     | 0.0 | 0        | 0.0  | 0      | 0.0  | 0.682      | 0.409 (NS) |
|      |                             | 4–6           | 0                                     | 0.0 | 10       | 33.3 | 5      | 16.7 |            |            |
|      |                             | 7–10          | 0                                     | 0.0 | 12       | 40.0 | 3      | 10.0 |            |            |

**NS-** Not significant

The above table unfolds that there was no association of selected obstetrical variables with intensity of episiotomy suturing pain in post test among control group.

## **CHAPTER-V**

### **DISCUSSION**

This chapter deals with the discussion which was based on the objectives findings obtained from the data analysis and its relation to the subjects of the study, the conceptual framework and with the reviewed literature. The aim of the study was to assess the effectiveness of breast crawl technique on initiation of breastfeeding and intensity of episiotomy suturing pain among primimothers at Karpaga Vinayaga Institute of Medical Sciences and Research Centre in Kancheepuram District. The study findings are discussed based on the following objectives.

#### **OBJECTIVES OF THE STUDY**

1. To evaluate the effectiveness of breast crawl technique on initiation of breastfeeding among primi mothers.
2. To identify the effectiveness of breast crawl technique on intensity of episiotomy suturing pain among primi mothers.
3. To associate the selected demographic and obstetrical variables with initiation of breastfeeding among primi mothers.
4. To associate the selected demographic and obstetrical variables with intensity of episiotomy suturing pain among primi mothers.

## **OBJECTIVE- 1**

**To evaluate the effectiveness of breast crawl technique on initiation of breastfeeding among primi mothers**

This study analysis revealed that, 26 (86.7%) of newborn had good ability to initiate the breastfeeding by breast crawl technique and 4 (13.3%) had better ability among experimental group. Out of 30 control group primi mother's newborn 18 (60%) and 12 (40%) had worst and better ability to initiate the breastfeeding respectively.

The independent 't' value on completion of initiation of breastfeeding between experimental and control group revealed the statistically significant difference at  $p < 0.001$ . These findings proved that breast crawl technique was very effective among primi mother's newborn to initiate the breastfeeding. Out of 30 newborns in experimental group, 26 (86.7%) reached the breast and latched within 30 minutes whereas 4 (13.3%) newborns reached the breast and latch within 30-60 minutes. This shows that initiation of breastfeeding after birth is really effective by breast crawl technique. This study findings was substantiated by another study conducted by Righard and Alade (2012) revealed that initiation of breastfeeding of newborn by breast crawl was effective ( $p < 0.001$ ). In addition to this Wildstrom (2012) described that the ability of the newborn to initiate breastfeeding immediately after delivery is successful and they were able to LATCH the mothers breast effectively.

The above findings proved that breast crawl technique was very effective to initiate the breastfeeding among primi mothers of newborn. The mean difference of

modified LATCH scale was 12.685 and independent 't' value was 21.296, which was statistically significant at level  $p < 0.001$ . Hence the  $H_1$  "There is a significant difference in the initiation of breastfeeding among newborn of the primi mothers who was subjected to breast crawl technique than those who do not", is accepted.

## **OBJECTIVE – 2**

**To identify the effectiveness of breast crawl technique on intensity of episiotomy suturing pain among primi mothers.**

The distribution of perception of intensity of episiotomy suturing pain unveiled that majority of 25 (83.3%) primi mothers in experimental group had mild pain during suturing of episiotomy. But majority of 22 (73.3%) primi mothers in control group had severe pain during suturing of episiotomy. The independent 't' value on comparison of intensity of episiotomy suturing pain proved the statistically significant difference at level  $p < 0.001$ . This finding was supported by another study conducted by Alvare. Z. H (2012) which revealed that breast crawl immediately after the birth of the newborn was very effective ( $p < 0.001$ ) to reduce the perception of intensity of episiotomy suturing pain. Betty, (2011), reported that there was a reduction of episiotomy suturing pain when the breastfeeding is practiced by newborn immediately after birth. These finding proved that breast crawl was effective to reduce the perception of intensity of episiotomy suturing pain. Hence the  $H_2$  "There is a significant difference in the intensity of episiotomy suturing pain among primi mothers who was subjected to breast crawl technique than those who do not" is accepted.

### **OBJECTIVE – 3**

#### **To associate the selected demographic and obstetrical variables with initiation of breastfeeding among primi mothers**

The chi-square value on association of selected demographic and obstetrical variables with initiation of breastfeeding among experimental group revealed the statistically significant association of age at marriage, birth weight of the newborn and Apgar score of the newborn at  $p < 0.05$  and  $p < 0.001$  respectively. This study findings was substantiated by another study conducted by Salariya, (2012), revealed that initiation of breastfeeding of newborn by breast crawl was effective ( $p < 0.001$ ) and reported that early initiation of breastfeeding within 10 minutes of birth was related to longer duration of breastfeeding by the breast crawl. They compared four groups of mothers, two of whom experienced early contact with their newborns ( $n=27$  and  $n=26$ ) and the other two groups ( $n=29$  and  $n=27$ ) who had delayed contact. Within the early and delayed contact groups, one subgroup breastfed second hourly while the other group breastfed fourth hourly. They concluded that early initiation and frequent feeding had positive influence on longer duration of breastfeeding by the breast crawl.

There was a statistically significant association of gestational age and Apgar score of the newborn in post test among control group at level at  $p < 0.01$  and  $p < 0.05$  respectively.

#### **OBJECTIVE – 4**

##### **To associate the selected demographic and obstetrical variables with intensity of episiotomy pain among primi mothers**

The association of selected demographic and obstetrical variables with intensity of episiotomy suturing pain revealed that there was no statistically significant association of variables among experimental group. But in the control group there was a statistically significant association of age of the primi mother's and educational status of the primi mother's at level  $p < 0.01$  and  $p < 0.05$  respectively. This study findings was substantiated by another study conducted by Betty, (2011), revealed that intensity of episiotomy suturing pain by breast crawl was effective ( $p < 0.001$ ) and reported that the newborn is prepared to suckle shortly after birth. Already the newborn has been making sucking motions in utero to suck and swallow the amniotic fluid. The newborn also has a rooting reflex that helps to turn and grasp the mother's nipple. The newborn adapts to breastfeeding readily by the breast crawl method and there is reduction of episiotomy pain during the suture.

There was a statistically significant association of age of the primi mothers and educational status of the primi mothers in post test among control group at level  $P < 0.01$  and  $p < 0.05$  respectively.

The above findings proved that the breast crawl was effective to initiate breastfeeding and it also reduces the episiotomy suturing pain among primi mothers. Thus breast crawl enhances the good maternal out come and promotes the newborn ability to initiate breast feeding at the earliest.

## **CHAPTER - VI**

### **SUMMARY, CONCLUSION, RECOMMENDATIONS, LIMITATIONS AND IMPLICATIONS**

This chapter deals with the brief account of the present study including summary, conclusion drawn from the findings, recommendations, limitations of the present study, implications for the nursing practices, nursing education, administration and nursing research.

#### **SUMMARY OF THE STUDY**

Every newborn when placed on her mother's chest, soon after birth has the ability to find her mother's breast all on her own and to decide when to take the first breast feed.

The investigator in this study assessed the effectiveness of breast crawl technique on initiation of breastfeeding and intensity of episiotomy suturing pain among primi mothers. A randomized controlled trial with post test only design was adopted for this study. Primi mothers were selected by purposive sampling technique. The sample size was 60. It included 30 each in experimental and control group.

Extensive review of literature, professional experience and expert guidance from the field of Obstetrics and Gynecology led the investigator to design the methodology.

The conceptual framework in this study was based on Modified Kristen M. Swanson theory of caring. The tools used for the study were modified LATCH scale and numerical pain rating scale to assess the newborns ability to initiate breastfeeding and perception of intensity of episiotomy suturing pain.

After obtaining the content validity from the experts, the pilot study was conducted and reliability of the tool was tested and it was found to be reliable.

The main study was conducted at Karpaga Vinayaga Institute of Medical Sciences and Research Centre, in Kancheepuram District. The sample was selected by using purposive sampling method. The data gathered were analyzed by descriptive and inferential statistical and interpretation was made on the basis of the objectives of the study.

The result disclosed that there was a statistically significant difference on the initiation of breastfeeding and intensity of episiotomy suturing pain between experimental and control group at level of  $p < 0.001$  in the post test. Thus it is evident from these findings that breast crawl technique was effective to maintain the breastfeeding and to reduce the episiotomy suturing pain.

#### **MAJOR FINDINGS OF THE STUDY**

- ❖ The distribution of initiation of breastfeeding and intensity of episiotomy suturing pain among primi mothers revealed that Out of 30 newborns, 26(86.7%) had good ability to initiate the breastfeeding and 25 (83.3%) primi mothers perceived mild episiotomy suturing pain in experimental group.



- ❖ Most of the 18 (60.0%) newborns had worst ability to initiate breastfeeding among control group. Among 30 primi mothers in control group 22 (73.3%) had severe episiotomy suturing pain.
- ❖ There was a statistically significant difference in the initiation of breastfeeding and intensity of episiotomy suturing pain between the experimental and control group at level  $p < 0.001$ .
- ❖ There was no association of selected demographic variables with initiation of breastfeeding among experimental group.
- ❖ There was a statistically significant association of obstetrical variables. Those are age at marriage, birth weight of the newborn in post test among experimental group at level  $p < 0.05$  and Apgar score of the newborn at level  $p < 0.001$ .
- ❖ There was no association of selected demographic variables with initiation of breastfeeding among control group.
- ❖ There was a statistically significant association of obstetrical variables. Those are of gestational age and Apgar score of the newborn in post test among control group at level  $p < 0.01$  and  $p < 0.05$  respectively.
- ❖ There was no association of selected obstetrical variables with intensity of episiotomy suturing pain in post test among experimental group.
- ❖ There was no statistically significant association of selected demographic and obstetrical variables with intensity of episiotomy suturing pain in post test among experimental group.

- ❖ There was a statistically significant association of age of the primi mothers and educational status of the primi mothers in post test among control group at level  $p < 0.01$  and  $p < 0.05$  respectively.
- ❖ There was no statistically significant association of selected obstetrical variables with intensity of episiotomy suturing pain in post test among control group.

## **CONCLUSION**

Breast crawl technique was very effective and significantly reduced the episiotomy suturing pain and initiated the breastfeeding among primi mothers. Over to this it is a simple measure which is very cost effective to maintain the initiation of breastfeeding and episiotomy suturing pain. Breast crawl technique was an easiest method which can be practiced by the all midwives to initiate the breastfeeding among newborns.

## **RECOMMENDATIONS**

Based on the findings of their study the following recommendations were drawn.

- ❖ A study can be carried out to evaluate the effect of breast crawl technique on expulsion of placenta and blood loss among primi mothers.
- ❖ A similar study can be conducted with the large sample size to generalize the findings.
- ❖ A similar study can be conducted in the community setting.
- ❖ A similar study can be conducted with large sample.

- ❖ A study can be conducted to assess the attitude of the primi mothers regarding breast crawl technique.
- ❖ A study can be conducted to identify the effectiveness of breast crawl technique on sucking and rooting reflex among newborns.

## **LIMITATIONS**

- Few mothers hesitated to expose themselves to the researcher but still they were convinced by adequate explanation.
- Few mothers had hesitation to apply the breast crawl because of fear about the baby, but it was made possible with adequate explanation.

## **IMPLICATIONS**

The findings of the study has implantation in different branches of nursing such as nursing practice, nursing education, nursing administration and nursing research.

## **NURSING PRACTICE**

- ❖ Breast crawl technique can be used by the Nursing Professionals working in the hospital for refining their practice, with the scientific principle.
- ❖ This method can be used in various health care settings by the nursing.
- ❖ Breast crawl technique can be demonstrated to the primi mother and care taker of primi mother.

## **NURSING EDUCATION**

- Nurse educators should educate the nursing professionals to practice the breast crawl technique and to find out the effectiveness.
- The nurses can be educated to follow their technique for reduction of episiotomy suturing pain and initiation of breastfeeding through breast crawl technique among primi mothers.
- Breast crawl technique can be included in the nursing curriculum.

## **NURSING ADMINISTRATION**

- ❖ The nurse administrator should assume more responsibility to inculcate the breast crawl technique in various health care settings.
- ❖ The nurse administrator should motivate the staff nurses and encourage them regarding the use of breast crawl technique for reducing intensity of episiotomy suturing and early initiation of breastfeeding immediately after the delivery of the newborn.
- ❖ The nurse administrator should organize in-service education programs for nurses to utilize breast crawl technique on reduction of intensity of episiotomy suture pain and initiation of breastfeeding among primi mothers.
- ❖ The nurse administrator can prepare written policies about these evidenced based practices in their institutions and made it as a protocol in care of primi mothers and newborns soon after delivery.

## **NURSING RESEARCH**

- ❖ The extensive scientific body of knowledge is derived from nursing research.
- ❖ Emphasis should be laid on research in the area of non pharmacological and cost effective measures to reduce episiotomy suturing pain and initiation of breastfeeding among the primi mothers.
- ❖ Research should be done in different aspects of utilizing traditional treatment options for reducing intensity of episiotomy suturing pain and initiation of breastfeeding and continued successful breastfeeding without any problem. More research in this area will be beneficial to nursing personnel in giving cost effective care for primi mothers.

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## SECONDARY SOURCES

<http://www.google.com>

<http://www.breast feeding.com>

<http://www.pubmed.com>.

[http// midwifeinfo.com](http://midwifeinfo.com).

[http// breast feeding.com](http//breast feeding.com)

[http// www.breast crawl.org](http//www.breast crawl.org).

## APPENDIX – A

### LETTER SEEKING PERMISSION FOR CONDUCTING THE STUDY



#### **KARPAGA VINAYAGA COLLEGE OF NURSING**

**(Recognised by the Indian Nursing Council and Affiliated to the  
Tamil Nadu Dr. M.G.R. Medical University, Chennai)**

G.S.T. Road, Chinna Kolambakkam, Palayanoor (P.O.) Madhuranthagam (Tk.)  
Kancheepuram Dt. - 603 308. Phone : 044 - 2756 5202 / 2759 8484

Ref: KVCN/2014

Date : .....  
10.11.2014

To

The Medical Superintendent  
Karpaga Vinayaga Institute of Medical Science  
MaduranthagamTk,  
Kancheepuram District - 603308.

Respected Sir,

Sub: To request permission for research study—Ms.D.Sadhana II year M.Sc(N) Reg.,

This is for your kind information that our II year M.Sc (N) student of this college has selected the following topic for her research work as required by the Tamilnadu Dr.M.G.R. Medical University, Chennai in partial fulfillment of her M.Sc (N) programme.

**“A study to assess the effectiveness of breast crawl technique on initiation of breast feeding and intensity of episiotomy suturing pain among primimothers at Karpaga Vinayaga Institute of Medical Sciences and Research Centre in Kancheepuram District”**

She would like to conduct research study in Karpaga Vinayaga institute of medical sciences and research centre, Kancheepuram District. Hence I kindly request you to grant permission for her study and extended your guidance and cooperation in this regard.

Thanking you,

Your's faithfully

Dr.T.KOMALAVALLI., Ph.D.,L.L.B

PRINCIPAL  
**PRINCIPAL**  
Karpaga Vinayaga College of Nursing  
G.S.T. Road, Chinna Kolambakkam,  
Maduranthagam.

## APPENDIX – B

### LETTER PERMITTING TO CONDUCT THE STUDY

**From**

Ms. Sadhana.D  
M.Sc (N) II Year  
Karpaga Vinayaga College of Nursing  
Maduranthagam TK

**Through proper channel**

**Respected sir,**

**Sub:** To request permission for research study – Reg.,

As a part of the curriculum requirement the following research title is selected for the study.

“A study to assess the effectiveness of breast crawl technique on initiation of breastfeeding and intensity of episiotomy suturing pain among primi mothers at Karpaga Vinayaga Institute of Medical Sciences and Research Centre in Kancheepuram District”.

I would like to conduct research study in Karpaga Vinayaga Institute of Medical Sciences and Research Centre in Kancheepuram District. Hence I kindly request you to grant permission for my study and extend your guidance and cooperation in this regard.

Thanking you

Yours faithfully,

[D. SADHANA]

Forwarded to HOB  
08/05/2020

May be permitted  
S.V/S

## APPENDIX – C

### LETTER REQUESTING OPINION AND SUGGESTION OF EXPERTS FOR ESTABLISHING CONTENT VALIDITY OF TOOL

From

Ms. Sadhana.D,  
Karpaga Vinayaga College of Nursing,  
Maduranthagam Taluk,  
Kancheepuram District.

To

---

Through the proper channel,

Respected Sir/Madam,

Sub: Requisition for opinion and suggestions of experts for establishing content validity of research tool.

Greetings! As a part of the curriculum requirement the following research title is selected for the study

“A study to assess the effectiveness of breast crawl technique on initiation of breastfeeding and intensity of episiotomy suturing pain among primi mothers at Karpaga Vinayaga Institute of Medical Sciences and Research Centre, in Kancheepuram District”.

I will be highly privileged to have your valuable suggestions with regard to the establishment of content validity of Research tool. So I request you to validate my Research tool and give suggestions about the tool.

Thanking you,

Place

Yours faithfully,

Date

**(D.Sadhana)**



## **APPENDIX –C1**

### **ACCEPTANCE FOR TOOL VALIDATION**

I hereby certify that I have validated the Research tool of Ms. Sadhana.D, II year M.Sc Nursing (Obstetrics and Gynecology) student who is undertaking research study.

“A study to assess the effectiveness of breast crawl technique on initiation of breastfeeding and intensity of episiotomy suturing pain among primi mothers at Karpaga Vinayaga Institute of Medical Sciences and Research Centre, in Kancheepuram District”.

The suggestions and advices are herewith enclosed.

**Place:**

**Signature of the expert**

**Date:**

**Name and Designation**

## **APPENDIX –D**

### **RESEARCH PARTICIPANTS CONSENT FORM**

Dear participants

I Ms. Sadhana.D, II year M.Sc(nursing) student of Karpaga Vinayaga College of Nursing, Maduranthagam Taluk, Kancheepuram district. As a part of my study research on **“A study to assess the effectiveness of breast crawl technique on initiation of breastfeeding and intensity of episiotomy suturing pain among primi mothers at Karpaga Vinayaga Institute of Medical Sciences and Research Centre, in Kancheepuram District”** is selected to be conducted. The findings of the study will be helpful in identifying the effectiveness of breast crawl technique on initiation of breastfeeding and intensity of episiotomy suturing pain.

I hereby seek your consent and cooperation to participate in the study. The information collected will be kept confidential.

**Signature of Researcher**

I \_\_\_\_\_ hereby consent to be the respondents and undergo the study.

**Signature of participants**

## ˆòð¼ø ÆĖĀõ

« ýòùÇĀí Š,üĀĭÇ÷, Û ì Ì ,

ĭ°øĀĤ Ė.°ĭ¼Ėĭ ñ, Ĥ ĭĭý ĭĭĭ °øĀõ ĀĭĀð¼õ, ĀĐĀĭó¼õ  
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ĭ¼ĭ¼ĭ ĭ¼ø ĀüÜõ ¼ĭĀĭý ĀĖòð ĭ ÜòĀø ĭ¼ĀĀĭø ðüĀĭ õ ĀĀĤĭý  
¼ĭý ĭ ĀĀĭý Āĭ Ç×òĀüĖĤ ñ ĀĭŌ¼ø" ±ý Ė ¼ĭ Āò Ā Š¼÷ó ĭ¼ĭ òĐùŠÇý.  
ĩó¼ ñ Āĭõĭ°øĭĭý ĭ ĩ ĭòĀĖòðĩüĀĭ ĀĭĖ Āĭ Š,üĀĭÇ÷, Û ì Ì ĭĀĭĐõ  
ŠĀÕ¼ĀĀĭ, ĩŌĭ ĭ õ ±ý Û Ĥòð, ĭý ŠĖý.

ĩð ĭ¼ĭ¼÷ĀĭĖ ñ Āĭõĭ°ø ĀĖòĀüĭ ĭ ĭ, Û ĭ¼Ā °òĀ¼õ ĀüÜõ  
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ĀĭĐĭ ĭĭ, òĀĭ õ ±ý Û ĩ¼ý ā Āõ ĭ Ü¼ĤÇĭ, ŠĖý.

ñ Āĭõĭ°øĭĭÇĭ÷ ĭ ĭĀĭòĀõ

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°òĀ¼õ ĭ¼ĭĤĭ, ĭý ŠĖý.

Āĭ Š,üĀĭÇ÷, Û ĭ ĭĀĭòĀõ

## **APPENDIX –E**

### **CERTIFICATE FOR ENGLISH EDITING**

#### **TO WHOM SO EVER IT MAY CONCERN**

This is to certify that the dissertation entitled **“A study to assess the effectiveness of breast crawl technique on initiation of breastfeeding and intensity of episiotomy suturing pain among primi mothers at Karpaga Vinayaga Institute of Medical Sciences and Research Centre, in Kancheepuram District”** by **Ms. SADHANA.D**, II Year M.Sc (N) student, Karpaga Vinayaga College of Nursing, was edited for English language appropriateness.

Signature and Designation

## **APPENDIX –E1**

### **CERTIFICATE FOR TAMIL EDITING**

#### **TO WHOM SO EVER IT MAY CONCERN**

This is to certify that the dissertation entitled “**A study to assess the effectiveness of breast crawl technique on initiation of breastfeeding and intensity of episiotomy suturing pain among primi mothers at Karpaga Vinayaga Institute of Medical Sciences and Research Centre, in Kancheepuram District**” by **Ms. SADHANA.D**, II Year M.Sc (N) student, Karpaga Vinayaga College of Nursing, was edited for Tamil language appropriateness.

Signature and Designation

## **APPENDIX – F**

### **ACCEPTANCE FOR TOOL VALIDATION**

- 1. Dr. Dhanusu, M.Sc.(N), Ph.D,**  
Principal  
Sri Manakula Vinayaga Nursing College  
Kali theerthalkuppam  
Puducherry-605107
- 2. Mrs. Kala bharathi M.Sc.(N),**  
Professor and HOD  
Obstetrics and Gynecological nursing  
Saveetha College of Nursing  
Saveetha University, Chennai.
- 3. Dr. Chakravarthi D.G.O.**  
Dean  
Karpaga Vinayaga Institute of Medical Sciences  
and Research Centre  
Maduranthagam Taluk, Kancheepuram District
- 4. Dr. Vijayalakshmi D.G.O.**  
HOD of obstetrics and gynecology  
Karpaga Vinayaga Institute of Medical Sciences  
and Research Centre  
Maduranthagam Taluk, Kancheepuram District

## **APPENDIX – G**

### **TOOL FOR THE STUDY**

#### **PART – I**

#### **DEMOGRAPHIC VARIABLES**

##### **Instruction**

Investigator places a tick (✓) mark in corresponding box according to the response of the subject

##### **1. Age of the primi mothers**

- a) 18 – 20 years (      )
- b) 21 – 25 years (      )
- c) 26 – 30 years (      )

##### **2. Religion of the primi mothers**

- a) Hindu (      )
- b) Christian (      )
- c) Muslim (      )

##### **3. Educational status of primi mothers**

- a) Literate (      )
- b) Primary school education (      )
- c) Secondary school education (      )
- d) Graduate and above (      )

**4. Occupational status of primi mothers**

- a) Home maker (      )
- b) Daily labour (      )
- c) Professional (      )
- d) Business (      )

**5. Occupational status of the spouse**

- a) Daily labour (      )
- b) Driver (      )
- c) Professional (      )
- d) Business (      )

**6. Family income/month (Rs)**

- a) Below Rs 5,000 (      )
- b) Rs 5,001 to Rs 10,000 (      )
- c) Rs 10,001 to Rs 15,000 (      )
- d) Above Rs 15,000 (      )

**7. Type of family**

- a) Nuclear family (      )
- b) Joint family (      )
- c) Extended family (      )

**8. Diet pattern of the primi mothers**

- a) Vegetarian (      )
- b) Non – vegetarian (      )
- c) Mixed diet (      )



## 9. Residence of the primi mothers

- a) Rural ( )
- b) Urban ( )

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1.  $\div \circ \hat{A} \frac{1}{2} \circ \frac{3}{4} i \hat{A} \hat{Y} \text{ (}\hat{O} \frac{3}{4} \emptyset \text{)} \hat{A} \hat{A} \hat{D}$   
 « .18-20  $\hat{A} \hat{A} \frac{3}{4} \hat{u} \hat{i} \hat{u}$  ( )  
 $\neg$  .21-25  $\hat{A} \hat{A} \frac{3}{4} \hat{u} \hat{i} \hat{u}$  ( )  
 p.26-30  $\hat{A} \hat{A} \frac{3}{4} \hat{u} \hat{i} \hat{u}$  ( )
2.  $\div \circ \hat{A} \frac{1}{2} \circ \frac{3}{4} i \hat{A} \hat{Y} \text{ (}\hat{O} \frac{3}{4} \emptyset \text{)} \circ \hat{A} \hat{A} \hat{o}$   
 « .póÐ ( )  
 $\neg$  .  $\hat{E} \hat{o} \hat{D} \hat{A} \hat{o}$  ( )  
 p.  $\hat{O} \hat{S} \hat{A} \hat{o}$  ( )
3.  $\div \circ \hat{A} \frac{1}{2} \circ \frac{3}{4} i \hat{A} \hat{Y} \text{ (}\hat{O} \frac{3}{4} \emptyset \text{)} \text{ } \circ \hat{A} \hat{A} \frac{3}{4} \hat{i} \frac{3}{4} \hat{c}$   
 « . $\hat{A} \hat{E} \hat{i} \text{ } \text{ } \frac{3}{4} \hat{A} \div$  ( )  
 $\neg$  .  $\neg \hat{A} \hat{o} \hat{A} \hat{c} \text{ } \hat{A} \text{ } \circ \hat{A} \hat{o} \frac{3}{4} \hat{i} \frac{3}{4} \hat{c}$  ( )  
 p.  $\neg \hat{A} \div \hat{c} \text{ } \hat{A} \text{ } \circ \hat{A} \hat{o} \frac{3}{4} \hat{i} \frac{3}{4} \hat{c}$  ( )  
 ® . $\hat{A} \hat{o} \frac{1}{4} \frac{3}{4} i \hat{c}$  ( )



## **PART – II**

### **OBSTETRICAL VARIABLES**

#### **Instruction**

Investigator places a tick (✓) mark in corresponding box according to the response of the subject

#### **1. Age at menarche**

- a) 10 – 11 years (      )
- b) 12 – 13 years (      )
- c) 14 – 15 years (      )
- d) 16 – 17 years (      )

#### **2. Age at marriage**

- a) ≤18 years (      )
- b) 19 – 22 years (      )
- c) 23 – 26 years (      )
- d) 27 – 30 years (      )

#### **3. Type of marriage**

- a) Maternal relation (      )
- b) Paternal relation (      )
- c) Non – consanguineous (      )

#### **4. Gestational age**

- a) ≤36 wks (      )
- b) 37 – 38 wks (      )
- c) 39 – 40 wks (      )
- d) Above 40 wks (      )

**5. Birth weight of the newborn**

- a) <2.5 kg ( )
- b) 2.5 – 3.00 kg ( )
- c) Above 3.00 kg ( )

**6. Apgar score of the newborn**

- a) 0 – 3 ( )
- b) 4 – 6 ( )
- c) 7 – 10 ( )

**ASSESSMENT OF THE NEWBORN APGAR SCORE**

| Signs       | 0                     | 1                              | 2                                   | Score |
|-------------|-----------------------|--------------------------------|-------------------------------------|-------|
| Appearance  | Blue or pale all over | Blue extremities but toes pink | Complete pink                       |       |
| Pulse       | None                  | <100 beats per minute          | ≥100 beats per minute               |       |
| Grimace     | No response           | Weak Grimace when stimulated   | Cries or pulls away when stimulated |       |
| Activity    | None                  | Some flexion of arms           | Arms flexed, legs resist extension  |       |
| Respiration | None                  | Weak irregular or gasping      | Strong cry                          |       |

**Total score – 10**

0-3 – Severally depression

4-6 – Moderately depression

7-10 – Normal/ Excellent condition

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|<sub>u</sub>îî ì<sub>u</sub>ôÄÖî ùÇÄÉìì<sub>u</sub> Ç ¾ìöÄì÷<sub>u</sub>Ç¼ö Š<sub>u</sub>Öî °ìÄìÉ Ä<sub>u</sub>¼<sub>u</sub> Ç  
(✓) |°öÖì ÈòÖ |<sub>u</sub>îÄì÷

1.âôÄ<sub>u</sub>¼ö¾ ŠÄìÖ ÄÄÖ

« .10-11 ÄÄÖ ( )

¬ .12-13 ÄÄÖ ( )

p. 14-15 ÄÄÖ ( )

®.16-17 ÄÄÖ ( )

2.¾ÄÖÁ½ö¾ÿ ŠÄìÖ ÄÄÖ

« .18 ÄÄÖ ( )

¬ .19-22 ÄÄ¾üì ù ( )

p. 23-26 ÄÄ¾üì ù ( )

®.27-30 ÄÄ¾üì ù ( )

3.¾ÄÖÁ½<sub>u</sub> Ë×

« .¾ìö ÄÆ<sub>u</sub> Ë× ( )

¬ .¾ö<sub>u</sub>¾ ÄÆ<sub>u</sub> Ë× ( )

p. Ë× Ó<sub>u</sub> Ë « øÄì¾ ( )

4.<sub>u</sub>÷ôÄ<sub>u</sub>Ä ÄÄÖ

« .36 ÄìÄö ÄüÜö « ¾üì ìì<sub>u</sub> ËÄì<sub>u</sub> ( )

¬ .37-38 ÄìÄö ( )

p. 39-40 ÄìÄö ( )

®.40 ÄìÄö¾üì ŠÁø ( )

5.Äî°ÇÖ ìÆó<sub>u</sub>¾Äÿ ±<sub>u</sub>¼

« .2.5<sub>u</sub>Çìì ì<sub>u</sub> ËÄì<sub>u</sub> ( )

¬ .2.5-3<sub>u</sub>Çì ( )

p.3<sub>u</sub>Çìì ŠÁø ( )

6. « ô<sub>u</sub>ì÷ Ä¾öìÄñ

« . 0-3 ( )

¬ .4-6 ( )

p. 7-10 ( )

## **PART– III**

### **MODIFIED LATCH SCALE**

| <b>CRITERIA</b>                    | <b>0</b>   | <b>1</b>                                    | <b>2</b>  |
|------------------------------------|--|---|---|
| <b>I. Newborn</b>                  |  |   |   |
| Ability to identify the nipple     | Not able to identify the nipple                        | Identify the nipple with assistance         | Identify the nipple without assistance  |
| Latch                              | No latch achieved                                      | Latch on after repeated attempts            | Eagerly grasped breast to latch on  |
| Sucking                            | Did not suckle   | Sucked but needed assistance                | Sucked rhythmically and lips flanged  |
| Audible swallowing                 | None   | A few with stimulation                      | Spontaneous and intermittent  |
| Length of time before latch on     | More than 60 minutes                                   | 30-60 minutes                               | Within 30 minutes   |
| <b>II. Mother</b>                  |  |   |   |
| Type of nipple                     | Inverted   | Flat  | Everted (after stimulation)   |
| Condition of the breast and nipple | Cracked, bleeding large blisters or bruises            | Filling reddened/ small blisters or bruises | Soft non- tender  |
| Hold (positioning)                 | Full assistance (Investigator holds newborn at breast) | Minimal assistance by investigator          | No assistance from investigator. Mother able to position and hold the newborn |
| Pain (episiotomy suturing pain)    | Severe pain  | Moderate pain                               | Mild pain   |

**Total score – 18**

0-4 –Notable to initiate breastfeeding through breast crawl

5-10- Need assistance to initiate breastfeeding through breast crawl

11-18- Actively initiated breastfeeding through breast crawl

**Score interpretation for Modified LATCH scale**

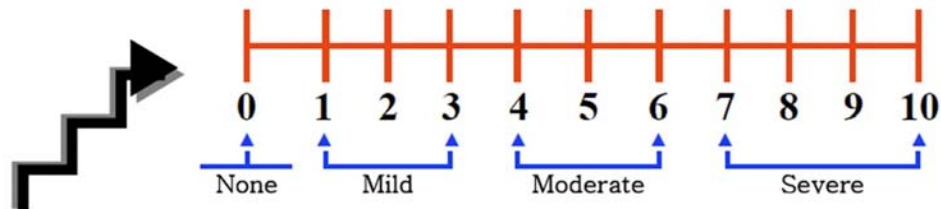
Worst = 0 – 4

Better = 5 – 10

Good = 11 – 18

**PART – IV**

**NUMERICAL PAIN RATING SCALE**



**Score interpretation**

1 – 3 = Mild pain

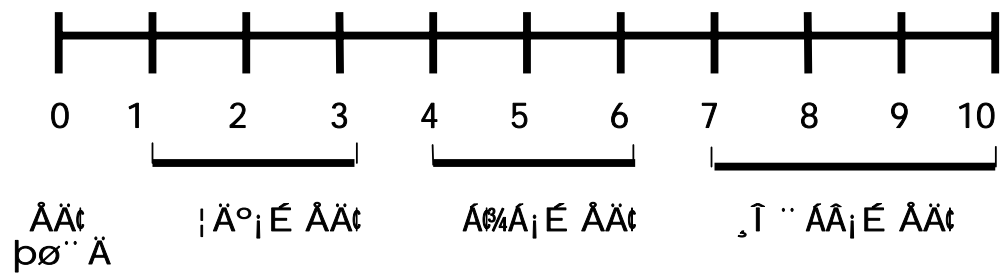
4 – 6 = Moderate pain

7 – 10 = Severe pain

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- 0 ÄÄ ¸ pø ¸ Ä
- 1-3 Ä°i È ÄÄ
- 4-6 Ä¼Äi È ÄÄ
- 7-10 Ä¼Äi È ÄÄ



# **PROCEDURE OF BREAST CRAWL TECHNIQUE**

## **INTRODUCTION**

The breast crawl technique is nothing but newborn crawl. In this procedure the newborn will crawl on the mother's abdomen and identify the nipple and spontaneously suck the milk.

## **BREASTCRAWL TECHNIQUE**

Every newborn when placed on the mother's abdomen soon after birth has the ability to find their mother's breast on their own and decides when to take the first breastfeed it is known as breast crawl.

By using this method there are advantages to the newborn as well as mother.

### ➤ Newborn

- Sucking and swallowing reflex
- Colostrum consumption
- Neurological development
- Apgar score
- Bonding
- Skin to skin contact
- Temperature maintenance

### ➤ Mother

- Early expulsion of placenta
- Decreasing the blood loss
- Bonding
- Maintain a good relation with baby
- Early initiation of breastfeeding

- Pain reduction due to baby attraction

### **CENTRAL OBJECTIVE**

The researcher will be able to administer breast crawl technique over the mothers with adequate knowledge and desirable attitude.

### **SPECIFIC OBJECTIVES**

The researcher will

- Prepare the mothers to receive breast crawl technique
- Follow the steps of application of breast crawl technique
- Perform the post test procedure after the application of breast crawl technique

### **STEPS OF BREAST CRAWL TECHNIQUE**

#### **Step1:**

Soon after delivery, clamp and cut the umbilical cord.

#### **Step 2:**

Dry the baby completely leave the hands to wet facilitate the crawl.

#### **Step 3:**

Show the newborn to the primimothers and keep close to her cheek.

#### **Step 4:**

Cover the primi mother's abdomen with thin cloth and place the newborn in prone position over the cloth.

#### **Step 5:**

The primi mother takes care of the baby and keeps hands over the baby to prevent the newborn from falling.

**Step 6:**

Raise the primi mother head with pillow to facilitate mother newborn visual contact. Encourage the mother to talk with her newborn.

Mother breast was not washed and wiped before feeding in order not to remove the odour.

**Step 7:**

Continue the breast crawl technique until completion of first breastfeed.

**Step 8:**

Assess the initiation of breastfeeding.

**Step 9:**

Assess the intensity of episiotomy pain during suturing.

**Step 10:**

Record and report the events.

**AFTER CARE**

- Clean the newborn
- Assess the newborn
- Make the mother in comfortable position
- Replace the articles
- Wash the hands
- Recording and reporting the condition of the mother and newborn.

## APPENDIX – H - EXPERIMENTAL GROUP

| Ex<br>sam<br>ple | DEMOGRAPHIC VARIABLES |              |               |                |             |            |             | OBSTETRICAL VARIABLE |               |              |                  |               |             |        | initia<br>bf | initiaf<br>score | pain<br>scal<br>e | pain<br>scor<br>e |       |
|------------------|-----------------------|--------------|---------------|----------------|-------------|------------|-------------|----------------------|---------------|--------------|------------------|---------------|-------------|--------|--------------|------------------|-------------------|-------------------|-------|
|                  | age                   | religio<br>n | educ<br>ation | occumo<br>ther | occuh<br>us | Inco<br>me | typfal<br>y | diet                 | resid<br>ency | Menar<br>che | marriag<br>e age | tymari<br>age | gesta<br>ge | weight |              |                  |                   |                   | apgar |
| 1                | 1                     | 1            | 2             | 2              | 4           | 3          | 1           | 1                    | 1             | 2            | 2                | 3             | 2           | 2      | 3            | 3                | 14                | 2                 | 2     |
| 2                | 1                     | 1            | 1             | 1              | 1           | 1          | 1           | 1                    | 1             | 2            | 3                | 3             | 2           | 2      | 3            | 3                | 15                | 2                 | 2     |
| 3                | 2                     | 1            | 1             | 1              | 1           | 1          | 1           | 1                    | 1             | 2            | 3                | 3             | 2           | 2      | 3            | 3                | 16                | 2                 | 2     |
| 4                | 2                     | 2            | 1             | 1              | 1           | 1          | 1           | 1                    | 1             | 2            | 3                | 3             | 3           | 2      | 3            | 3                | 17                | 2                 | 2     |
| 5                | 2                     | 1            | 1             | 1              | 1           | 1          | 1           | 1                    | 1             | 3            | 3                | 3             | 2           | 3      | 3            | 3                | 17                | 3                 | 5     |
| 6                | 2                     | 2            | 1             | 1              | 2           | 1          | 2           | 2                    | 1             | 3            | 3                | 3             | 2           | 3      | 3            | 3                | 17                | 2                 | 2     |
| 7                | 2                     | 2            | 4             | 1              | 2           | 2          | 2           | 2                    | 1             | 3            | 3                | 3             | 3           | 3      | 3            | 3                | 17                | 2                 | 2     |
| 8                | 3                     | 3            | 1             | 1              | 2           | 2          | 2           | 2                    | 2             | 3            | 2                | 3             | 3           | 2      | 3            | 3                | 17                | 2                 | 2     |
| 9                | 3                     | 2            | 1             | 2              | 2           | 2          | 2           | 3                    | 2             | 3            | 2                | 3             | 3           | 2      | 3            | 3                | 17                | 2                 | 2     |
| 10               | 2                     | 2            | 1             | 2              | 3           | 3          | 3           | 3                    | 1             | 2            | 2                | 3             | 3           | 2      | 3            | 3                | 17                | 3                 | 5     |
| 11               | 2                     | 2            | 2             | 2              | 3           | 3          | 3           | 3                    | 1             | 2            | 1                | 3             | 3           | 2      | 3            | 3                | 17                | 2                 | 2     |
| 12               | 2                     | 1            | 2             | 2              | 4           | 4          | 3           | 3                    | 1             | 2            | 1                | 2             | 3           | 2      | 3            | 3                | 17                | 2                 | 2     |
| 13               | 2                     | 1            | 3             | 2              | 4           | 4          | 1           | 3                    | 1             | 1            | 2                | 2             | 3           | 3      | 3            | 3                | 16                | 2                 | 2     |
| 14               | 2                     | 1            | 3             | 1              | 2           | 3          | 1           | 3                    | 2             | 1            | 2                | 3             | 3           | 2      | 3            | 3                | 16                | 2                 | 2     |
| 15               | 2                     | 1            | 3             | 1              | 2           | 3          | 1           | 3                    | 1             | 2            | 3                | 3             | 3           | 2      | 3            | 3                | 16                | 2                 | 2     |
| 16               | 2                     | 1            | 2             | 4              | 3           | 2          | 1           | 3                    | 2             | 2            | 3                | 1             | 3           | 2      | 3            | 3                | 16                | 3                 | 5     |
| 17               | 2                     | 3            | 2             | 2              | 3           | 2          | 1           | 3                    | 1             | 2            | 3                | 1             | 2           | 3      | 3            | 3                | 16                | 2                 | 3     |
| 18               | 2                     | 3            | 1             | 4              | 4           | 4          | 1           | 3                    | 2             | 3            | 4                | 2             | 2           | 3      | 2            | 3                | 16                | 2                 | 2     |
| 19               | 3                     | 2            | 1             | 2              | 4           | 3          | 2           | 3                    | 1             | 3            | 4                | 2             | 2           | 3      | 3            | 3                | 13                | 2                 | 2     |
| 20               | 3                     | 1            | 2             | 2              | 4           | 2          | 2           | 3                    | 2             | 3            | 4                | 3             | 2           | 2      | 3            | 2                | 10                | 2                 | 2     |
| 21               | 2                     | 2            | 2             | 2              | 1           | 2          | 2           | 3                    | 1             | 2            | 4                | 3             | 3           | 2      | 2            | 2                | 10                | 3                 | 4     |
| 22               | 2                     | 1            | 3             | 1              | 1           | 1          | 3           | 3                    | 2             | 2            | 3                | 3             | 3           | 2      | 3            | 3                | 14                | 2                 | 2     |
| 23               | 2                     | 1            | 3             | 1              | 1           | 1          | 1           | 3                    | 1             | 2            | 3                | 2             | 3           | 2      | 3            | 3                | 14                | 2                 | 2     |
| 24               | 3                     | 1            | 2             | 1              | 1           | 1          | 1           | 3                    | 2             | 2            | 3                | 2             | 1           | 2      | 3            | 3                | 14                | 2                 | 2     |
| 25               | 2                     | 1            | 3             | 1              | 1           | 1          | 1           | 3                    | 1             | 1            | 2                | 3             | 1           | 2      | 2            | 2                | 10                | 2                 | 2     |
|                  |                       |              |               |                |             |            |             |                      |               |              |                  |               |             |        |              |                  |                   |                   |       |
| 26               | 2                     | 1            | 2             | 2              | 1           | 1          | 1           | 3                    | 2             | 2            | 2                | 1             | 2           | 1      | 2            | 2                | 10                | 2                 | 2     |
| 27               | 3                     | 2            | 3             | 2              | 1           | 1          | 2           | 3                    | 2             | 2            | 2                | 1             | 2           | 2      | 3            | 3                | 15                | 3                 | 4     |
|                  |                       |              |               |                |             |            |             |                      |               |              |                  |               |             |        |              |                  |                   |                   |       |
| 28               | 2                     | 2            | 2             | 2              | 1           | 3          | 2           | 3                    | 2             | 2            | 2                | 2             | 2           | 2      | 3            | 3                | 15                | 2                 | 2     |
| 29               | 2                     | 2            | 1             | 1              | 1           | 3          | 3           | 2                    | 1             | 2            | 3                | 2             | 3           | 2      | 3            | 3                | 15                | 2                 | 2     |
|                  |                       |              |               |                |             |            |             |                      |               |              |                  |               |             |        |              |                  |                   |                   |       |
| 30               | 2                     | 3            | 4             | 1              | 3           | 3          | 3           | 2                    | 1             | 2            | 3                | 3             | 3           | 2      | 3            | 3                | 15                | 2                 | 2     |

# CONTROL GROUP

| Samp<br>le | DEMOGRAPHIC VARIABLES |              |               |                 |              |            | OBSTETRICAL VARIABLES |          |               |              |             |               |             |            |           |   | bfsco<br>re | initia<br>bf | painsc<br>or | painsc<br>ale |
|------------|-----------------------|--------------|---------------|-----------------|--------------|------------|-----------------------|----------|---------------|--------------|-------------|---------------|-------------|------------|-----------|---|-------------|--------------|--------------|---------------|
|            | ag<br>e               | religi<br>on | educati<br>on | occumoti<br>her | occuli<br>us | inco<br>me | typfa<br>ly           | di<br>et | residen<br>cy | Menarc<br>he | mar.a<br>ge | tymaria<br>ge | gesta<br>ge | weig<br>ht | apg<br>ar |   |             |              |              |               |
| 1          | 1                     | 1            | 1             | 1               | 1            | 1          | 2                     | 1        | 1             | 1            | 1           | 3             | 2           | 2          | 2         | 6 | 2           | 5            | 3            |               |
| 2          | 1                     | 1            | 1             | 1               | 1            | 1          | 2                     | 1        | 1             | 1            | 1           | 3             | 2           | 2          | 2         | 6 | 2           | 5            | 3            |               |
| 3          | 1                     | 1            | 1             | 1               | 1            | 2          | 1                     | 1        | 1             | 1            | 1           | 3             | 2           | 2          | 2         | 6 | 2           | 5            | 3            |               |
| 4          | 1                     | 1            | 2             | 2               | 1            | 3          | 1                     | 1        | 1             | 1            | 2           | 3             | 2           | 2          | 2         | 6 | 2           | 4            | 3            |               |
| 5          | 2                     | 2            | 2             | 2               | 1            | 3          | 1                     | 1        | 1             | 1            | 3           | 2             | 1           | 2          | 3         | 6 | 2           | 4            | 3            |               |
| 6          | 2                     | 2            | 2             | 2               | 2            | 2          | 1                     | 1        | 1             | 1            | 3           | 2             | 1           | 1          | 3         | 5 | 2           | 4            | 3            |               |
| 7          | 2                     | 2            | 1             | 2               | 2            | 2          | 1                     | 1        | 1             | 1            | 3           | 1             | 1           | 1          | 3         | 3 | 1           | 6            | 3            |               |
| 8          | 3                     | 3            | 1             | 2               | 2            | 2          | 2                     | 2        | 1             | 2            | 3           | 1             | 3           | 1          | 3         | 3 | 1           | 6            | 3            |               |
| 9          | 3                     | 2            | 1             | 2               | 3            | 1          | 2                     | 2        | 1             | 2            | 4           | 2             | 3           | 1          | 3         | 3 | 1           | 6            | 3            |               |
| 10         | 3                     | 3            | 3             | 4               | 3            | 1          | 3                     | 3        | 1             | 2            | 4           | 3             | 3           | 1          | 3         | 5 | 2           | 6            | 3            |               |
| 11         | 3                     | 2            | 3             | 4               | 3            | 1          | 3                     | 3        | 2             | 3            | 4           | 3             | 4           | 1          | 2         | 5 | 2           | 8            | 4            |               |
| 12         | 3                     | 2            | 2             | 2               | 3            | 3          | 3                     | 3        | 2             | 3            | 4           | 3             | 2           | 1          | 2         | 5 | 2           | 5            | 3            |               |
| 13         | 3                     | 2            | 3             | 4               | 4            | 3          | 3                     | 3        | 1             | 4            | 4           | 3             | 2           | 1          | 2         | 6 | 2           | 5            | 3            |               |
| 14         | 3                     | 1            | 2             | 2               | 4            | 4          | 3                     | 3        | 1             | 4            | 3           | 3             | 2           | 3          | 2         | 6 | 2           | 5            | 3            |               |
| 15         | 2                     | 1            | 3             | 4               | 4            | 4          | 2                     | 2        | 1             | 2            | 3           | 3             | 2           | 3          | 2         | 6 | 2           | 6            | 3            |               |
| 16         | 2                     | 2            | 2             | 2               | 4            | 4          | 2                     | 2        | 2             | 2            | 3           | 3             | 2           | 3          | 3         | 6 | 2           | 6            | 3            |               |
| 17         | 2                     | 2            | 3             | 4               | 4            | 3          | 3                     | 3        | 2             | 2            | 2           | 3             | 4           | 1          | 3         | 5 | 2           | 6            | 3            |               |
| 18         | 2                     | 3            | 2             | 4               | 1            | 3          | 3                     | 3        | 2             | 3            | 1           | 2             | 3           | 1          | 3         | 3 | 1           | 5            | 3            |               |
| 19         | 2                     | 3            | 3             | 1               | 1            | 3          | 3                     | 3        | 2             | 3            | 1           | 2             | 3           | 1          | 3         | 3 | 1           | 5            | 3            |               |
| 20         | 3                     | 3            | 1             | 1               | 1            | 2          | 1                     | 1        | 2             | 1            | 1           | 1             | 3           | 1          | 3         | 3 | 1           | 7            | 4            |               |
| 21         | 3                     | 1            | 1             | 1               | 1            | 2          | 1                     | 1        | 1             | 1            | 2           | 1             | 2           | 1          | 2         | 6 | 2           | 7            | 4            |               |
| 22         | 3                     | 1            | 1             | 1               | 1            | 1          | 1                     | 1        | 1             | 1            | 2           | 2             | 2           | 1          | 2         | 6 | 2           | 7            | 4            |               |
| 23         | 3                     | 1            | 4             | 1               | 1            | 1          | 1                     | 1        | 1             | 2            | 3           | 3             | 2           | 1          | 2         | 6 | 2           | 7            | 4            |               |
| 24         | 3                     | 2            | 1             | 1               | 1            | 1          | 1                     | 1        | 2             | 3            | 4           | 2             | 1           | 1          | 2         | 3 | 1           | 5            | 3            |               |
| 25         | 3                     | 2            | 1             | 1               | 2            | 1          | 1                     | 1        | 2             | 3            | 4           | 3             | 1           | 3          | 2         | 3 | 1           | 5            | 3            |               |
| 26         | 3                     | 2            | 1             | 1               | 2            | 1          | 1                     | 1        | 2             | 4            | 3           | 1             | 1           | 3          | 2         | 3 | 1           | 7            | 4            |               |
| 27         | 3                     | 2            | 4             | 1               | 3            | 2          | 3                     | 3        | 1             | 3            | 3           | 1             | 2           | 2          | 3         | 5 | 2           | 7            | 4            |               |
| 28         | 3                     | 1            | 2             | 1               | 3            | 1          | 3                     | 3        | 1             | 2            | 2           | 3             | 2           | 2          | 3         | 3 | 1           | 5            | 3            |               |
| 29         | 3                     | 1            | 2             | 1               | 4            | 1          | 3                     | 3        | 1             | 2            | 1           | 3             | 2           | 1          | 3         | 3 | 1           | 5            | 3            |               |
| 30         | 3                     | 1            | 3             | 4               | 2            | 3          | 3                     | 3        | 1             | 1            | 1           | 3             | 2           | 1          | 3         | 3 | 1           | 5            | 4            |               |

## **APPENDIX – I**

### **PHOTOGRAPHS OF THE STUDY**

#### **COLLECTING DEMOGRAPHIC DATA**



#### **APPLICATION OF BREAST CRAWL TECHNIQUE**



